



EDGE X FOUNDRY™

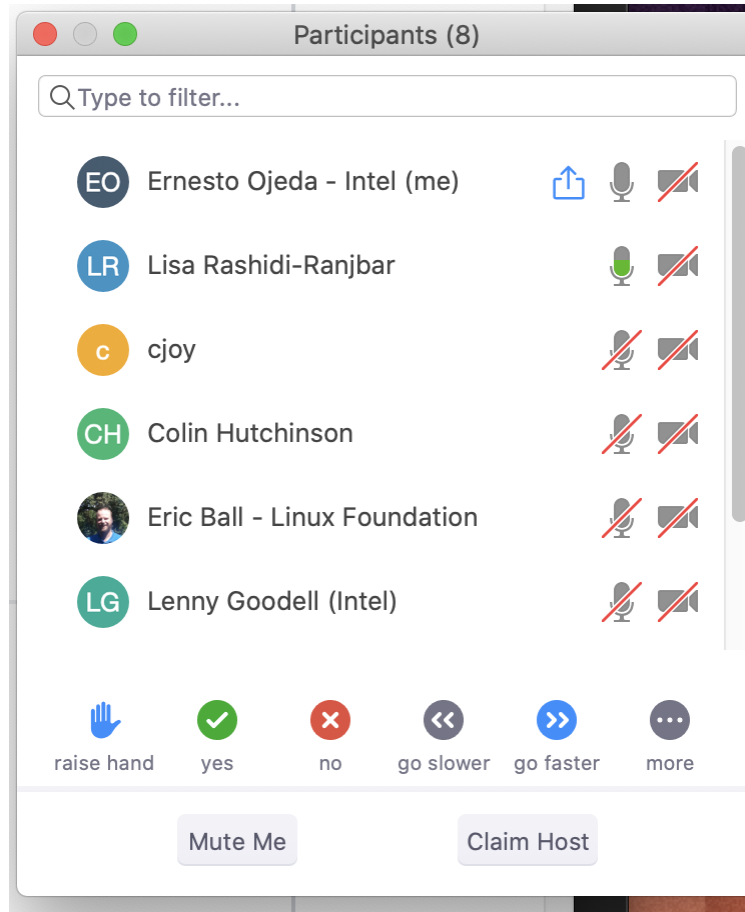
DevOps Working Group

Thursday November 14, 2019

Agenda

Time	Topic	Owner
5 Min	Fuji Release Date Update	Lisa
30 Min	Geneva transformation	Ernesto
10 Min	Opens	

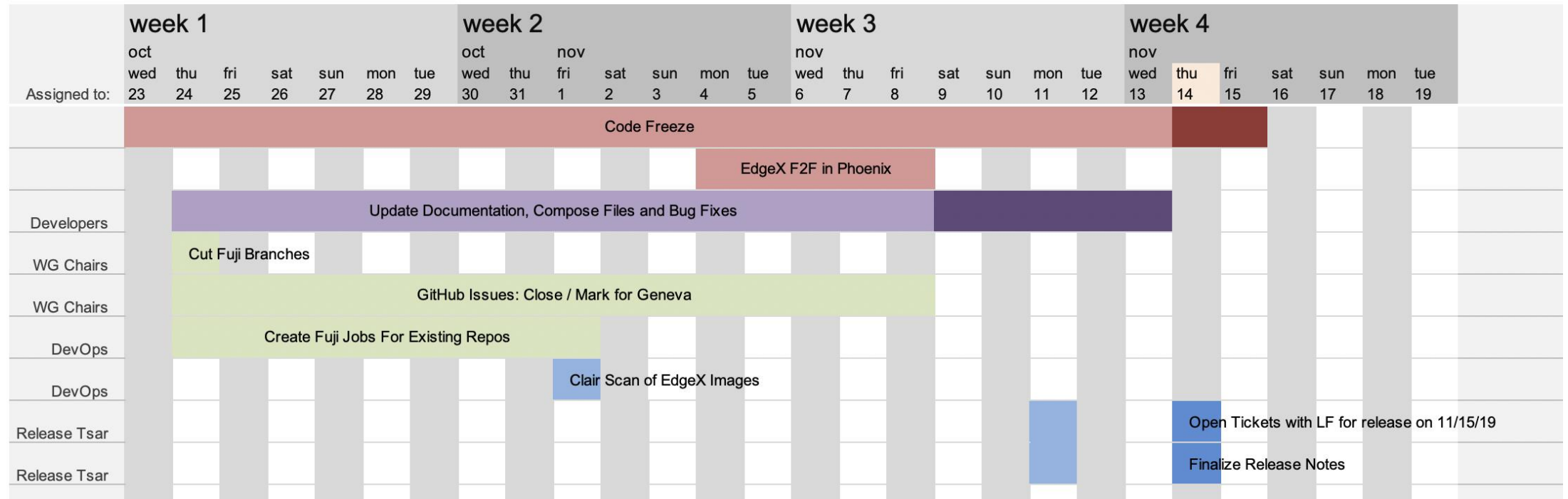
Attendees



Fuji Release

- Freeze: Oct 23rd (Wednesday)
- Release: Nov 15th (Friday)

Start Date: 10/23/19 (with extension)



DevOps WG Update

- **Geneva F2F**
 - DevOps will focus on Jenkins Transformation to Pipelines
 - Review of the material covered in the F2F
 - <https://github.com/ernestoqueda/geneva-transformation>
- **Community Bridge - Advanced Snyk Reporting**
 - Need New Contact from LF

Branch Protections set on all repos where needed

Pull Request Templates

Next Meeting 11/14/19 @9:00 PST

Backlog Review

The screenshot displays the Jira backlog for the EdgeX Foundry Project. The interface includes a navigation bar with 'Repositories 95', 'Packages', 'People 68', 'Teams 96', and 'Projects 12'. The 'DevOps WG' group is selected, with a progress indicator and 'Updated 7 days ago'. A search bar for 'Filter cards' and options for '+ Add cards', 'Fullscreen', and 'Menu' are visible.

The backlog is organized into five columns:

- New Issues (27):** Contains four items:
 - Build Automation for Open Horizons** (enhancement, geneva): edgex-global-pipelines#63 opened by jamesgregg
 - SPIKE - Identify a tool / plugin (bot) to check PR / Issue status** (geneva, spike): edgex-global-pipelines#62 opened by jamesgregg
 - SPIKE - Identify a tool / plugin to enforce use of "conventional commit" messages** (geneva, spike): edgex-global-pipelines#61 opened by jamesgregg
 - New build automation for device-bluetooth-c** (ci-management#470 opened by intel)
- Release Backlog (0):** Empty column.
- In Progress (1):** Contains one item:
 - Github Org/Branch source plugin configuration** (geneva, phase 1): ci-management#491 opened by Iranjbar
- QA/Code Review (2):** Contains two items:
 - New build automation for device-bacnet-c** (enhancement, fuji): ci-management#451 opened by jamesgregg
 - New global pipelines for GoLang and Docker builds** (enhancement, geneva): edgex-global-pipelines#60 opened by ernestojedaa. Status: 2 of 2, Changes approved.
- Done (61):** Contains four items:
 - Update Postman image (Fuji)** (bug, fuji): blackbox-testing#329 opened by intel
 - Rename newman image** (bug, fuji): ci-build-images#82 opened by intel
 - Changes approved**
 - Delete repo - jenkins_pipeline_present** (edgex-global-pipelines#32 opened by jamesgregg)
 - JJB template for regres** (ci-management#461 opened by intel, hold)

Automated status indicators are shown at the bottom of each column: 'To do', 'In progress', and 'Done'.

Meeting Minutes

Jenkins Pipeline Training / Overview



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Geneva Planning

Scope Discussions

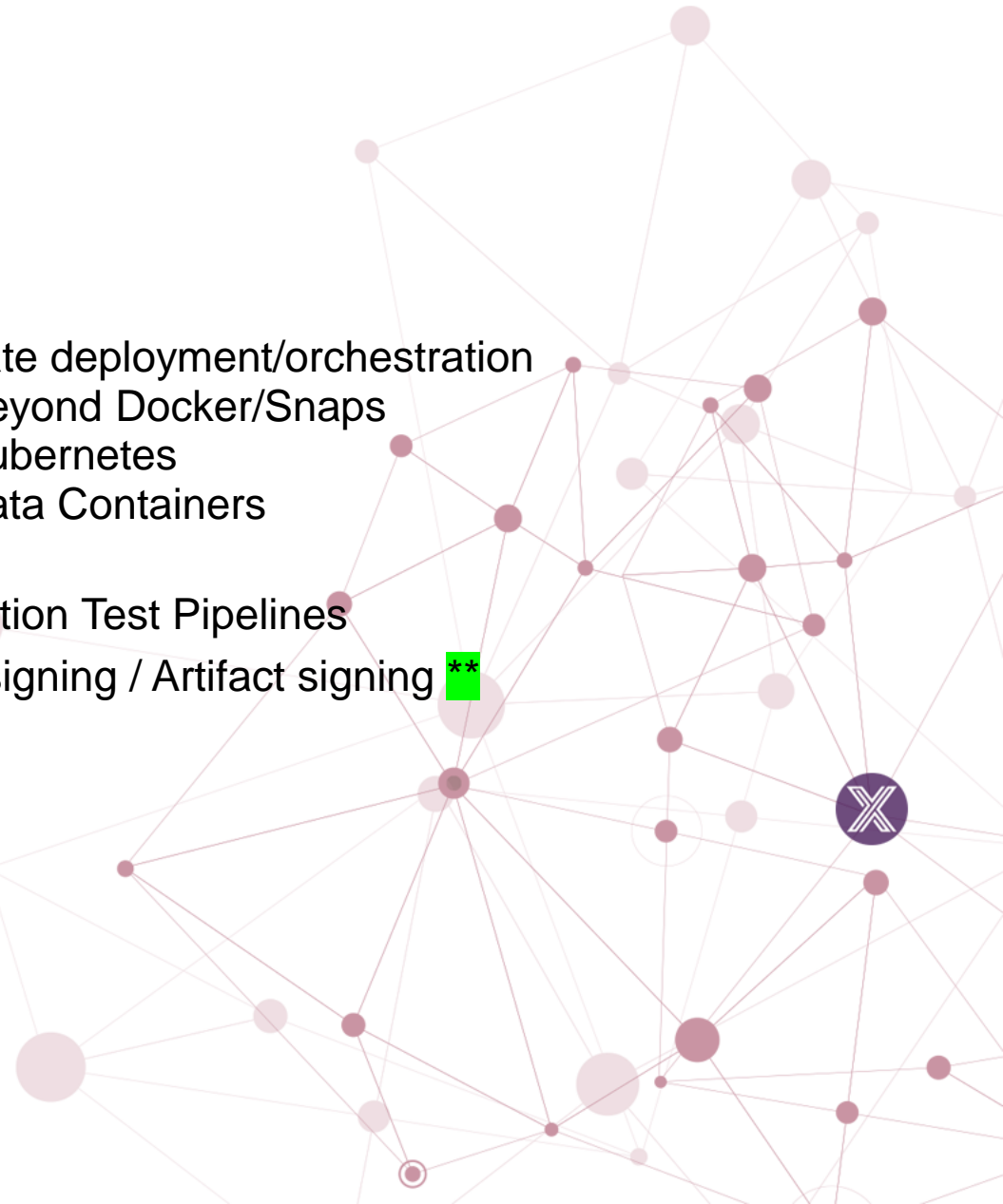
Geneva – DevOps

In

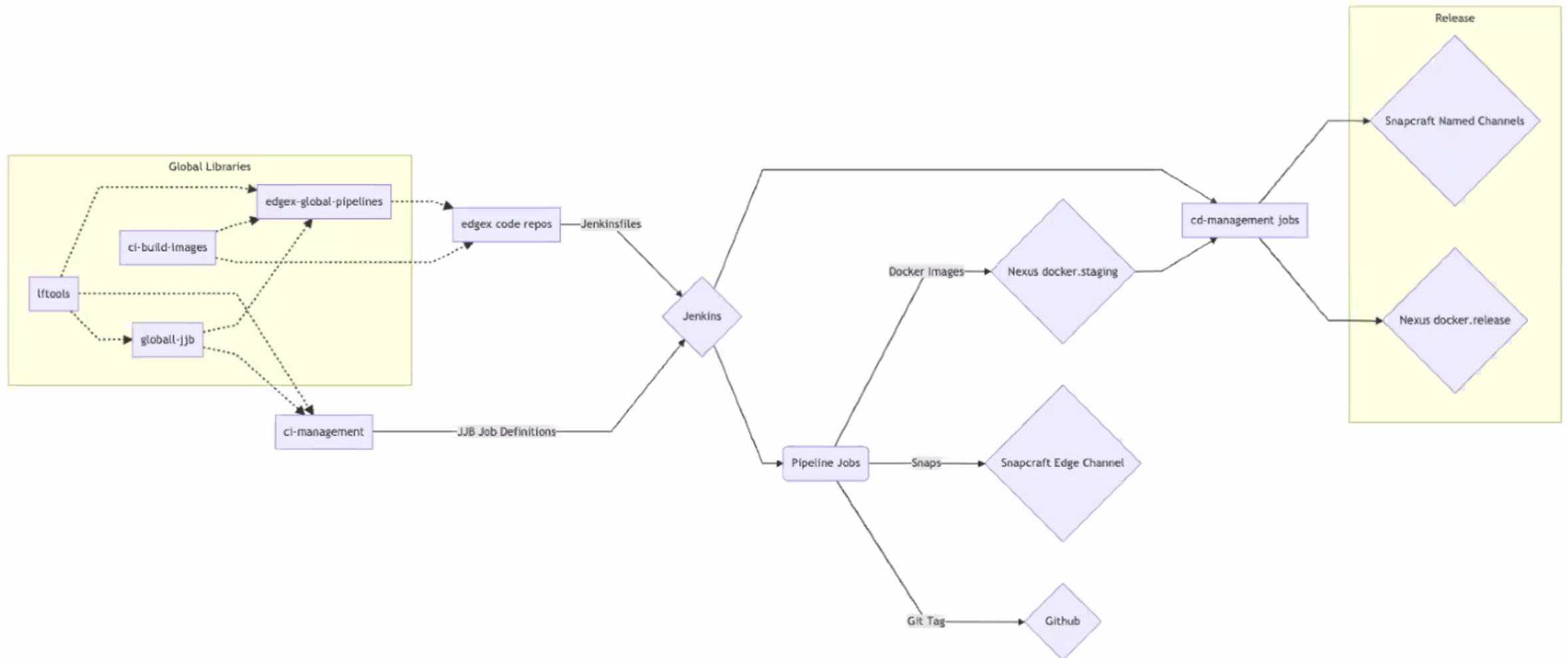
- Full Pipeline transformation for EdgeX services
 - Convert Jenkins JJB Freestyle jobs to Jenkins Pipelines
- Introduce GitHub Org Plugin
- Simplified Jenkinsfile
- Global Libraries to support Jenkins Pipeline transformation
- Add Unit testing to global-libraries (uncommitted) **
- Snyk integration for edgex services
 - As part of Jenkins Pipeline conversion
- Slack integration with Jenkins pipelines
- Nexus Cleanup / Lifecycle Policy

Out

- Alternate deployment/orchestration
 - Beyond Docker/Snaps
 - Kubernetes
 - Kata Containers
 - ...
- Integration Test Pipelines
- Code signing / Artifact signing **

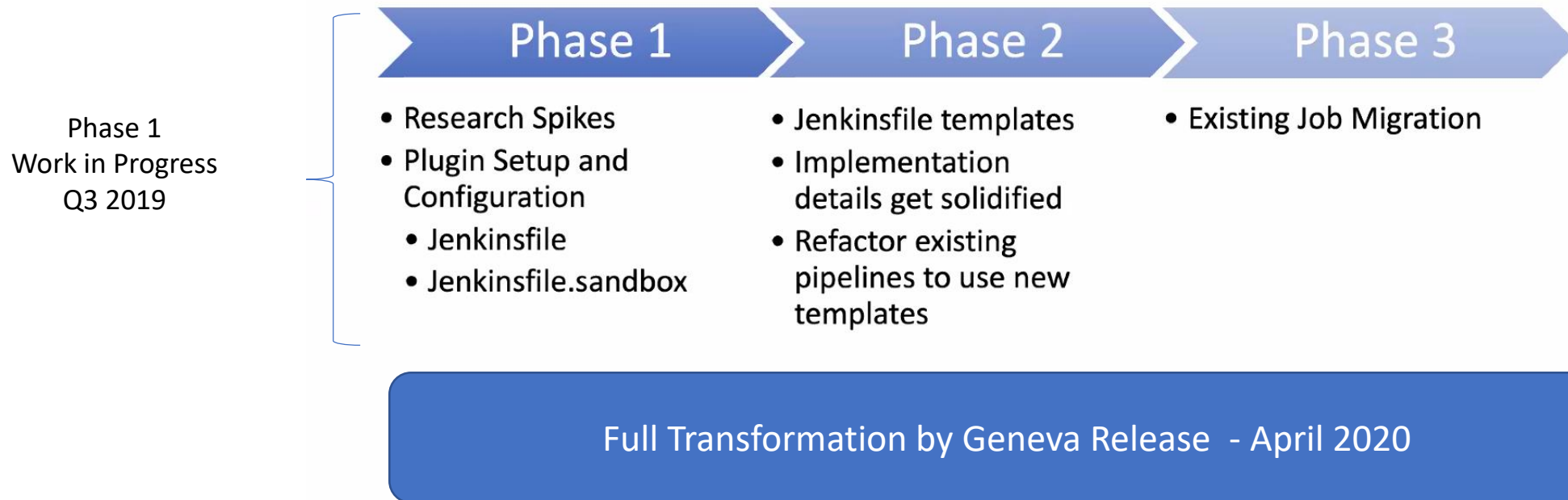


Geneva Transformation: Architecture



How long does it take? Is this all Geneva scope?

Geneva Transformation





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Fuji Planning

Scope Discussions

Fuji – DevOps

In

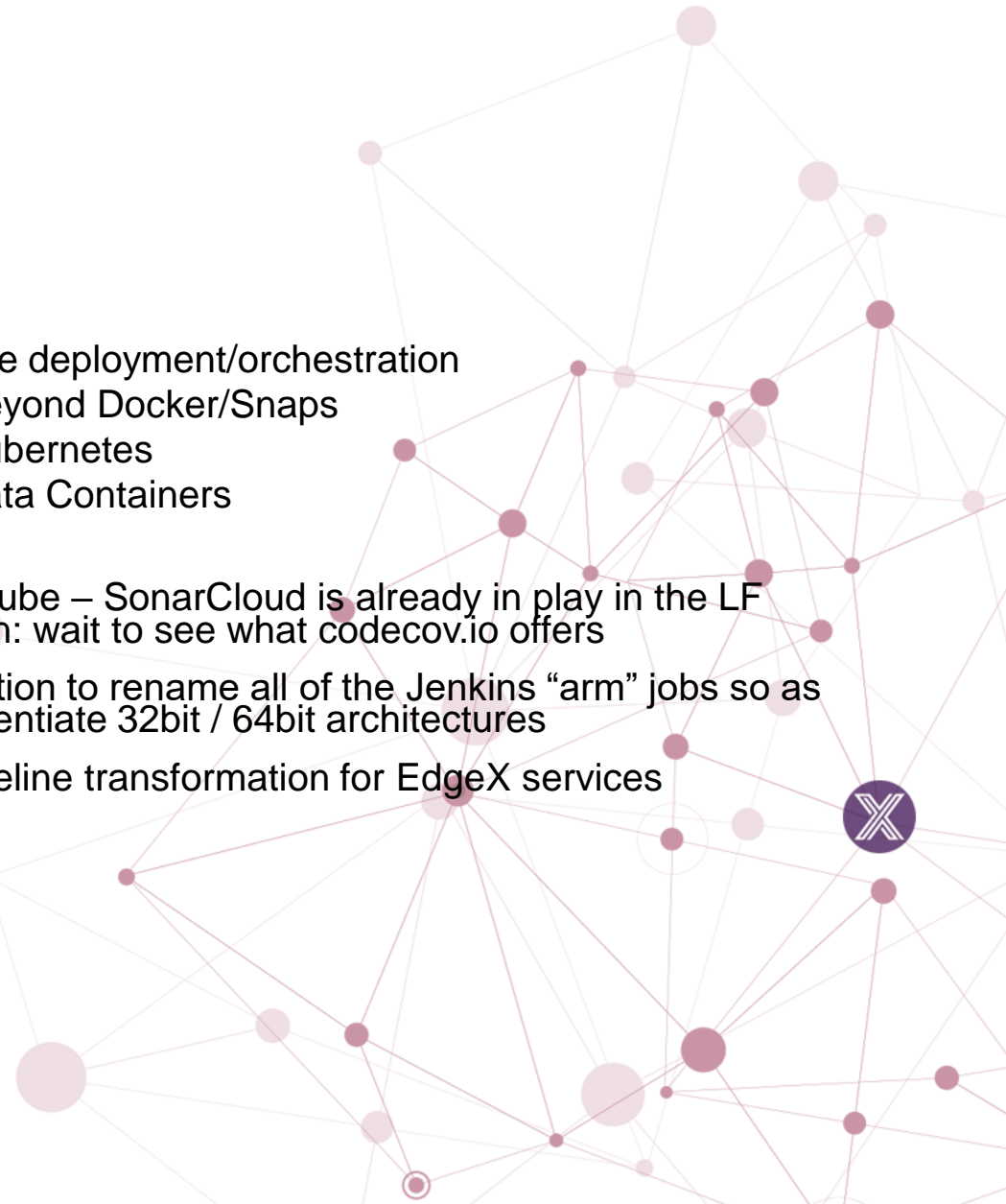
- Static code analysis tool identified and integrated into the EdgeX Jenkins Pipeline for Docker image scanning (Clair Server)

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"> • Adding Pipelines for EdgeX Foundry base build images • Allow base build images to be managed locally within Nexus • Leverage PyPi Proxy for local pip dependencies 	
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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