# EDGE X FOUNDRY

DevOps Working Group

Thursday July 25, 2019



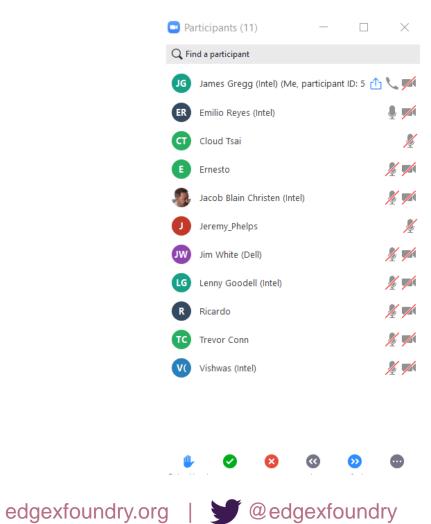
# Agenda

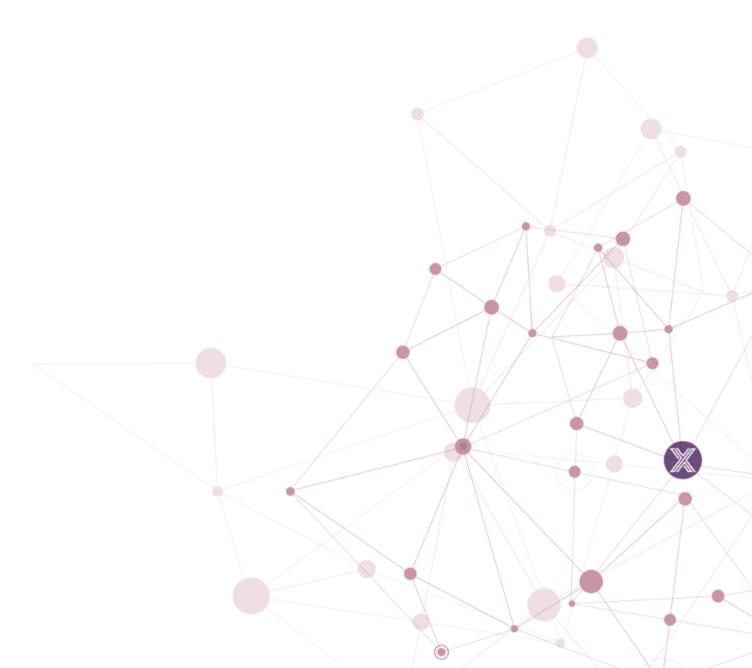
Time	Topic	Owner
10 min	Edinburgh : Dot Release Update	James Gregg / Eric Ball / Jim White
10 Min	Fuji Update	James Gregg
10 min	Other Business: Multiple Topics	James / Trevor / Jim White
10 Min	Opens	All





### Attendees







# EdgeX DevOps WG Update (Edinburgh Dot Release)

Edinburgh Dot Release (1.0.1)
What's left to wrap up this dot release?

- Need to check the ARM version and non-ARM version to ensure they both get pushed to Docker Hub
- The system management service PR will merge and once built, needs to be pushed to Docker Hub

Decision: TSC Meeting voted and Approved on 7/17
Planned Release now scheduled for 7/22

# DevOps WG Update

- Fuji Scope
- Performance Optimizations Ernesto optimized the Pipeline jobs (does all the post build actions in about 20 seconds, down from 1m40s-2m)
  - Added a User story to do the same optimization for the Freestyle jobs in this Sprint
- Container Scanning (Clair Server landing request) has now been committed to by Linux Foundation with resources planned and funding approved for hosting on AWS.
  - Expected Completion: Next Week
- Static Code Analysis Tools
  - Plan to review output of tools
    - Checkmarx DONE
    - Snyk WIP
    - Coverity
    - SonarQube / SonarCloud
  - Added a User Story in this Sprint to complete the analysis and produce reports for review in Security WG

- GitHub repo audit completed and actions taken to address empty repos
  - Review Repo Owners / Teams
- Review of the Linux Foundation Infrastructure as Code re: Performance Testing completed
  - Meeting with Jordan Conway 7/23
  - Jordan modified the EB implementation scale up to single t3.xlarge
    - EBS disk change not implemented at this time
    - May decide to architect a new solution based off of the Clair server architecture
    - Request to QA-Test WG to "hammer away" and report back on performance observations
    - Will see how well it works over the weekend (Saturday)

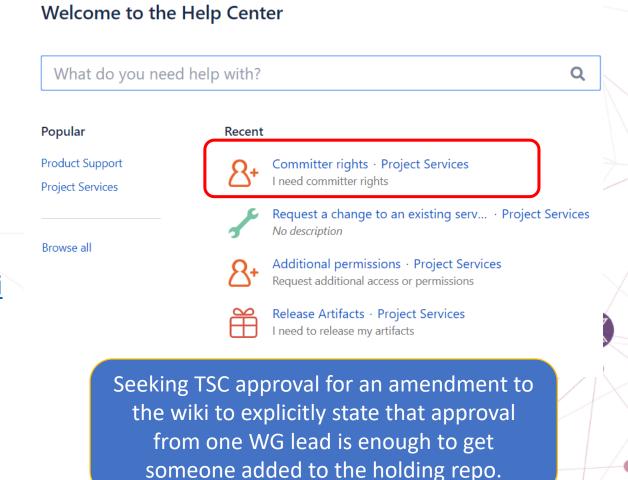






# Other Business: Topic 1 Holding Repo Committer Access Requests (James)

- Holding Repo Committer Access Requests
  - Need to submit change requests using new JSD process, not email
  - Need to submit the request using the proper request type
  - Need to update the <u>wiki</u> to reflect the proper change request process
  - Proposed change to verbiage on the wiki will reflect that requests made for committers to holding repos, do not require TSC approval and that the working group chair may request permission changes to holding repos via JSD ticket submission.





# Other Business: Topic 1 Holding Repo Committer Access Requests (James)

Your request status changed to Waiting for customer. 7 hours ago



Andrew Grimberg 8 hours ago James Gregg,

Please use the proper request type for committer rights in the future. There is an issue specifically for committer rights vs the 'Additional Permissions' issue type that you used. That issue type asks for everything we need. Instead, we're now forced to ask for the authorizing information.

We *require* some sort of TSC / Governing body approval link (mailing list link to minutes or minutes link) for committer rights. If there is a reason that the governing body does not need to approve committer rights for a repository then a link to *that* is required.

Details 8 hours ago

Project

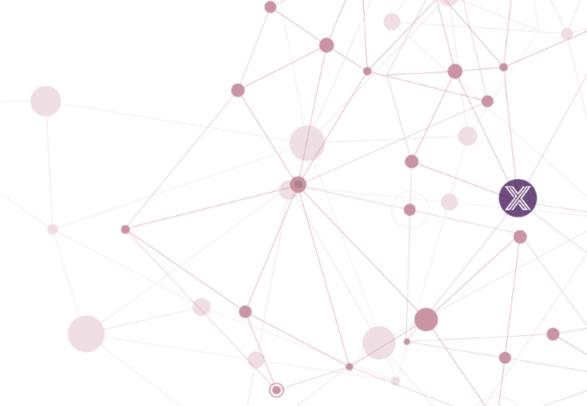
EdgeX Foundry

Approval links

Please add Vishwas to the committers on these two holding repos: edgexfoundry-holding/edgex-taf-common edgexfoundry-holding/regression-test GitHub ID: vishwassp-hcl-intel

Decision

 Jim will draft the updated policy and circulate for TSC approval.





## Other Business: Topic 2 Repo Ownership / Teams (Jim White)

- Repo Ownership / Teams
- What do we want our ownership policy to be for repo?
  - When we have multiple chairs listed, who would own?
  - What about go modules?
  - Original requestor of a repo would be de-facto owner (most likely wg chair)
  - Device / App service from 3<sup>rd</sup> party would be owned by the wg chair once transferred out of holding to main Org
  - Need to take audit to the TSC for review





## Other Business: Topic 3 API Endpoints (Trevor)

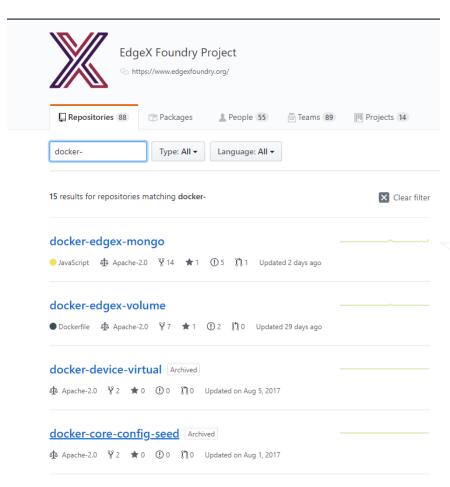
API Endpoints

- ~/Documents/code/git/tsconn23/e dgex-go \$ git describe
- fatal: No tags can describe '9b423a24532468bb1930ea6ffe9a f800680590aa'.
- Try --always, or create some tags.
- Consul
- Jq
  - Decision: Jacob will send some examples to core list for review





## Other Business: Topic 4 "docker-" naming convention for release artifacts



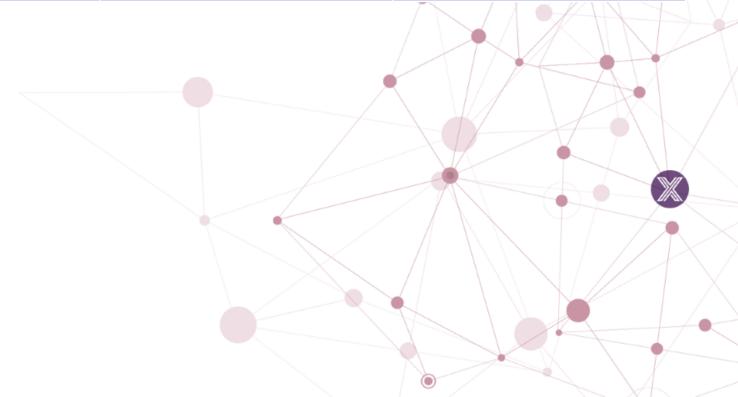
Discussion

- Decision
  - Keep the prefix for now
  - Revisit at time of Fuji Release
  - There is a need to standardize for other services such as the mongo and volume services
  - Revisit with community feedback



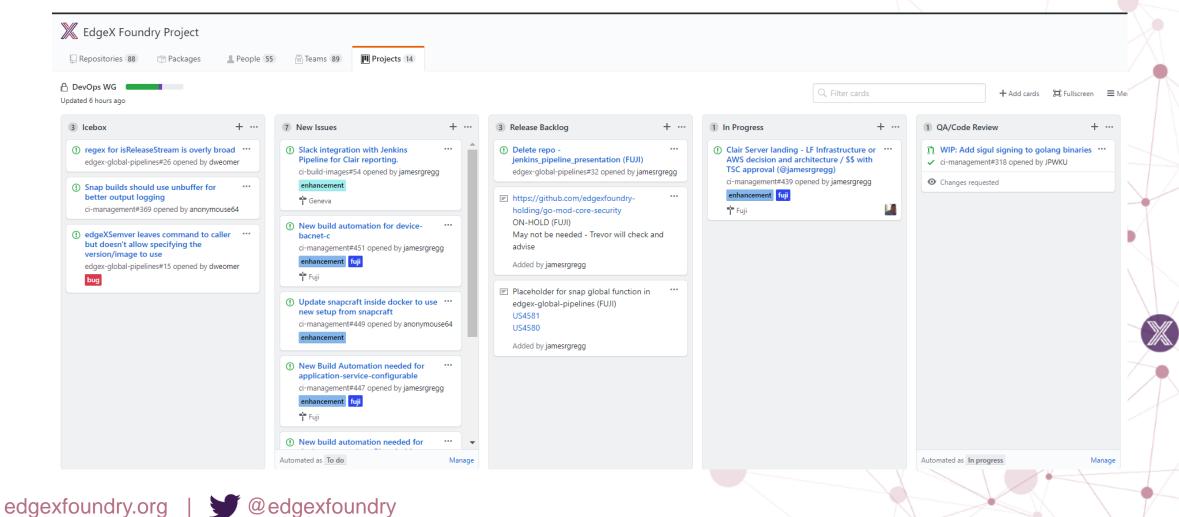
## Work Review

Helpdesk Ticket #	Description	Details	Status
75648	Dedicated Clair server for EdgeX	Pending decision on strategy for K8s + cost / availability of resources with LF	WIP





# **Backlog Review**





# Meeting Minutes

James to update the Excel spreadsheet for the GitHub Holding Repo Audit and share once completed. – DONE

Jim will send updated policy out for TSC approval – DONE See discussion and email list for review.

Jacob to send the examples for review - DONE



# Edinburgh Retrospective

#### What went right?

- Communication of when the release was scheduled, was very clear.
- LF and DevOps team cooperating together seemed to work well but with pressure added on top of everyone
- Most artifacts were ready to release in the beginning. It didn't seem like every repo was affected with issues (no extra work)
- Edinburgh Staging view was very helpful
- Great communication and collaboration between Intel DevOps team members and great prioritization
- Prioritization and Organization of the work (assignments and splitting up the work early on in the code release) was helpful

#### What went wrong?

- EdgeX-UI repos were late code drop
- Lack of a UI WG
- Communication around details was lacking from WG leads
- Need clear definition and understanding from WG leads that have different / independent release cycles
- JSD was introduced in the middle of the release and introduced issues that impacted communications with LF RE
- Availability and Competing priorities of Eric Ball / RE impacted release work
- Branches cut early caused extra work for both developers and DevOps



# Edinburgh Retrospective (continued)

#### What Ideas would help next time?

- Jenkins Pipelines branch defined in Jenkinsfile
- Do Not cut the branch early
- Release from master
- Don't allow PRs to master during code freeze (unless bug fix)
- Release Czar manages the release and acts as coordinator
- Need better visibility as to WIP during release. What does DONE look like?
- Set clear expectations for FUJI ahead of time
- Have a solid and well defined scope for executing the release.
- Shorten the release timeframe
- Actually Freeze Code
- Don't pull in late code drops

#### What Actions will we take?

- Better coordination with RE to lay out the scope of work
- New UI WG DONE
- Better tooling Pipelines (Geneva)
- Better clarity and organization / coordination of the work
- Release Czar coordinates and runs the release
- Shrink the release date where no development is going on during "code freeze"
- Create automation on the list of artifacts to release

# EDGE KFOUNDRY

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	187
<ul> <li>Conduct build performance optimizations by:         <ul> <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> </li> </ul>	
Explore static code analysis like Checkmarx, Coverity, GuardRails, Synk, SonarQube	18

- 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 Iftools 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



# EDGE KFOUNDRY

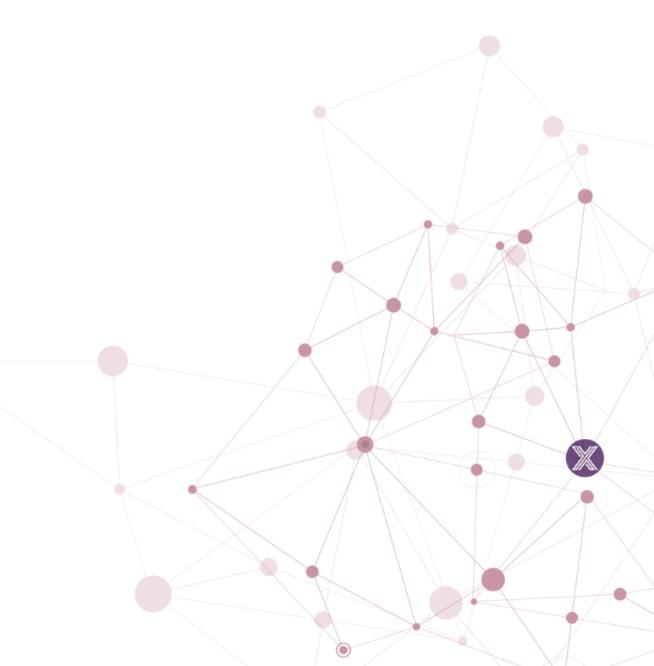
Edinburgh Release

Release Planning



# **Edinburgh Dates**

- Freeze Date May 28
- Release Date June 20
- Press Release July 11
- Dot Release July 22







# Past / Future Agenda Topics

WW27	No Meeting – US Holiday
WW28	
WW29	
WW30	
WW31	
WW32	
WW33	
WW34	
WW35	
	Athens Project – proxy server for go package dependencies
	Community Involvement
eagexiounary.org   weagexiounary	