## Agenda

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Owner</th>
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</thead>
<tbody>
<tr>
<td>10 Min</td>
<td>DevOps WG Update (Fuji)</td>
<td>James Gregg</td>
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<tr>
<td>10 Min</td>
<td>Nexus Artifact Reporting</td>
<td>Lisa Rashidi-Ranjbar</td>
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<tr>
<td>10 Min</td>
<td>Other Business: Multiple Topics</td>
<td>All</td>
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<tr>
<td>10 Min</td>
<td>Geneva Planning</td>
<td>James Gregg</td>
</tr>
<tr>
<td>10 Min</td>
<td>Opens</td>
<td>All</td>
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Attendees
DevOps WG Update

Fuji Scope

Container Scanning

- Switched Jenkins Pipeline to the new LF hosted endpoint for Clair scanned container reports.

Static Code Analysis Tools

- Snyk Integration with Jenkins
  - Tested new Snyk build image within Jenkins Pipeline - edgex-go scans compared against known good CLI scan and image scan found a bug in the build image that needed remediated to set GO PATH correctly in the image. - DONE
  - Create a new global library that will be used with Jenkins Pipel ine stage that runs the Snyk CLI scan using the new Snyk build-agent image - WIP
  - SPIKE:
    - Need to figure out the way we want to integrate Open Source repos using a common / shared account to Snyk
    - Configure notifications to SIR team members

- NEW Jenkins Pipeline for go-mod-secrets (Issue #468) – DONE
- go-mod-core-security repo in EdgeX Foundry holding Archived – Thank you Jim White!
- Owning WG added to description on EdgeX Foundry Org repos – Thank you Eric Ball!
- Maintenance Scheduled for today – 8/29/19 5PM PST
## Work Review

<table>
<thead>
<tr>
<th>Helpdesk Ticket #</th>
<th>Description</th>
<th>Details</th>
<th>Status</th>
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<tbody>
<tr>
<td></td>
<td>Snyk configuration on repo using LF service account</td>
<td>Help needed by LF to configure repo using service account</td>
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Backlog Review
Meeting Minutes

• Bring Jenkins Pipeline Transformation topic back for review

• Nexus Artifact Management Discussion
  • Nexus has a lot of images which are never going to be used.
  • It’s difficult to identify what’s there let alone what’s needed.
  • Trevor proposes a simplified Tagging convention for Docker images
  • There is a need to introduce a cleanup routine (lifecycle policy) of Nexus repos
  • Blackbox / Performance testing is dependent upon the maturity of the new TAF which has yet to be implemented.
  • Blackbox tests locate their nightly images for testing using this script – https://github.com/edgexfoundry/blackbox-testing/blob/master/bin/env.sh

Nexus Artifacts Standard

Attach metadata in docker labels for reporting and tracking purposes
• Jenkins server url
• Job name
• Build #
• LF build log link
• Repo name

Use docker tags as sliding labels to track
• Branch following tags
  ○ ie: master, edinburgh, fuji, etc
  ○ The numbered version tag would be released at the end of the cycle
    ○ 1.1.0 - Test/QA WG
  ○ Latest follows the latest commit in Github

Feedback:
• Clean up old development versions
• No value in image built for every commit
• No lifecycle policy for clean up of Nexus
• Get Test/QA WG Input
• Get App WG Input
• Also create a proposal for the automated release vision based off the metadata Lisa has been advocating for
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

Out
- Alternate deployment/orchestration
  - Beyond Docker/Snaps
  - Kubernetes
  - Kata Containers
  - …
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)

<table>
<thead>
<tr>
<th>Scope of Work</th>
<th>Status</th>
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<tbody>
<tr>
<td>Add static artifact analysis into the EdgeX Jenkins Pipeline (analysis of Docker /runtime artifacts, not the source code)</td>
<td>✔️</td>
</tr>
<tr>
<td>Add code and artifact signing with semantic versioning</td>
<td>✔️</td>
</tr>
<tr>
<td>Conduct build performance optimizations by:</td>
<td>✔️</td>
</tr>
<tr>
<td>• Adding Pipelines for EdgeX Foundry base build images</td>
<td>✔️</td>
</tr>
<tr>
<td>• Allow base build images to be managed locally within Nexus</td>
<td>✔️</td>
</tr>
<tr>
<td>• Leverage PyPi Proxy for local pip dependencies</td>
<td>✔️</td>
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<tr>
<td>Explore static code analysis like Checkmarx, Coverity, GuardRails, Synk, SonarQube</td>
<td>✔️</td>
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- 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
### Past / Future Agenda Topics

<table>
<thead>
<tr>
<th>WW36</th>
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<tr>
<td>WW37</td>
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