EDGE X FOUNDRY™

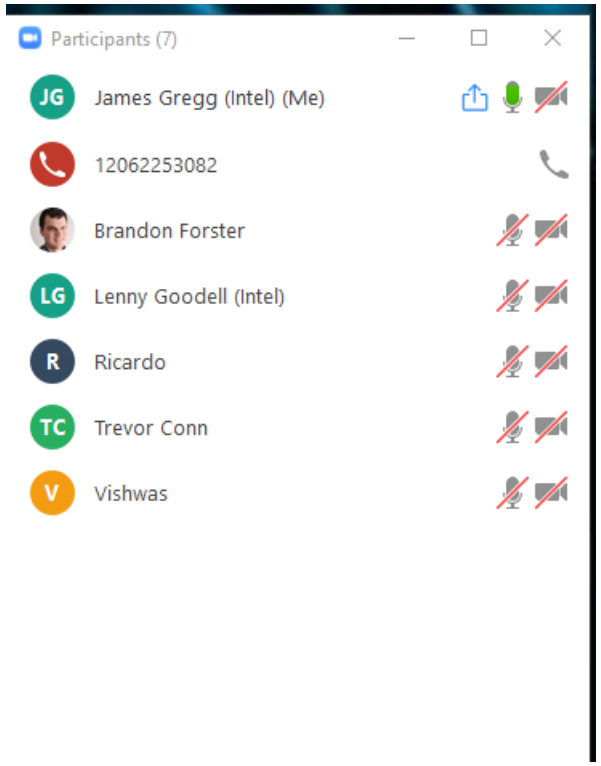
DevOps Working Group

Thursday August 15, 2019

Agenda

Time	Topic	Owner
10 Min	DevOps WG Update (Fuji)	James Gregg
10 Min	Other Business: Multiple Topics	All
10 Min	Opens	All

Attendees


Participants (7)
JG
James Gregg (Intel) (Me)
12062253082
Brandon Forster
LG
Lenny Goodell (Intel)
R
Ricardo
TC
Trevor Conn
V
Vishwas

DevOps WG Update

- **Fuji Scope**
- **Container Scanning**
  - Clair server has now been landed by Linux Foundation on AWS.
  - Troubleshooting with Daniel Nunez to debug issues with the endpoint (503 Errors).
  - Provided CloudFormation template last week and per Daniel, he now sees the Clair container staying Active in ECS
    - Need to test the connection to the endpoint and advise

- **Static Code Analysis Tools**
  - Great demo of Snyk in the Security WG meeting last week.
  - Coverity doesn't support Go lang
  - Pricing - https://snyk.io/plans/

- **Audit of GitHub repos / teams** of main edgexfoundry org completed
  - Discuss in next DevOps WG
    - Changes to add repo owners will require TSC approval
    - Email sent out 8/13/19
    - Votes from Trevor, Mike, Jim W, Iain, Brad, Malini, James with all approvals from TSC members plus some outstanding community members.

  Action: Submit the change request via JSD process.

Snyk Pricing

Reply Reply All Forward

RL

Rob Lafortune <rob@snyk.io> Gregg, James R 12:36

Re: Making an Introduction

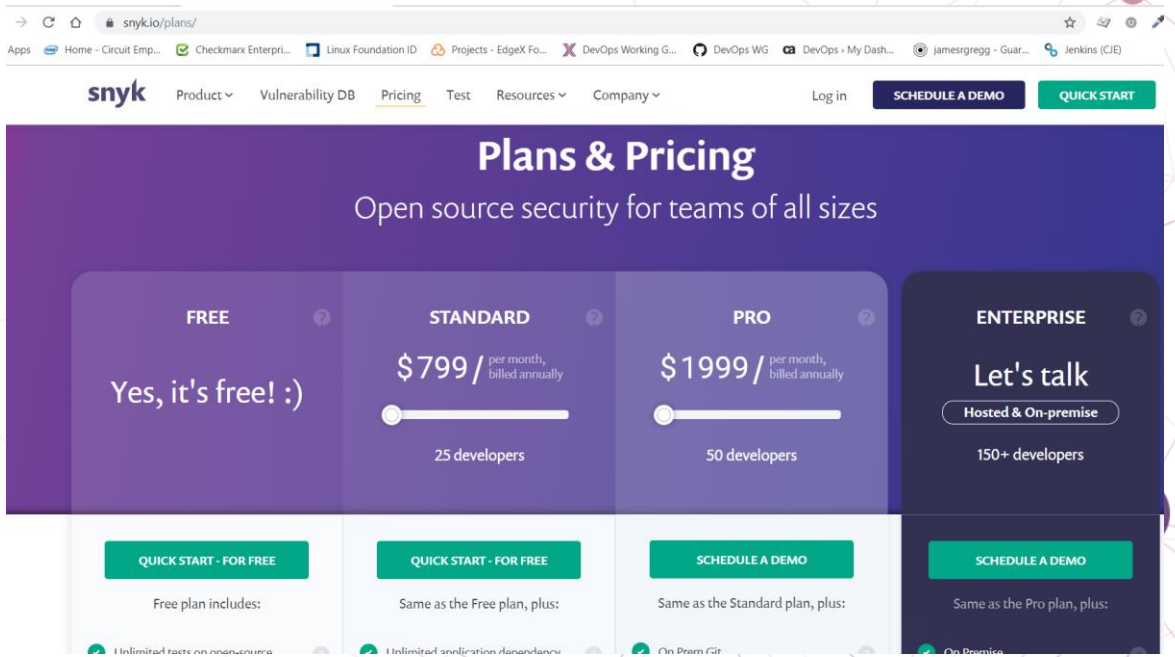
Retention Policy Mail Cloud - Inbox (60 days) Expires 10/13/2019

You replied to this message on 8/14/2019 1:10 PM.

Hi James,
Thanks for following up. The solution engineer that delivered the demo was Tom Gleason. He's pretty great at his job - right?
There were a number of things that Tom showed that wouldn't be included in the free OSS version of Snyk or be limited to the number of "scans" per month. For private projects, we limit to 200 per month for the base product. If you were to use our container solution, you would be limited to 100 scans of the containers per month.
The best place to view what would be a feature that would mean paying for Snyk you should look at our plans page (Snyk.io/plans). I would be happy to jump on a call to talk through these with you if you would like. Let me know.

Thanks
Rob

Rob Lafortune
Sales Director | Phone: 1.613.324.1064| 515 Legget Dr, Suite 310, Kanata, ON K2K 3G4
Book a meeting with me

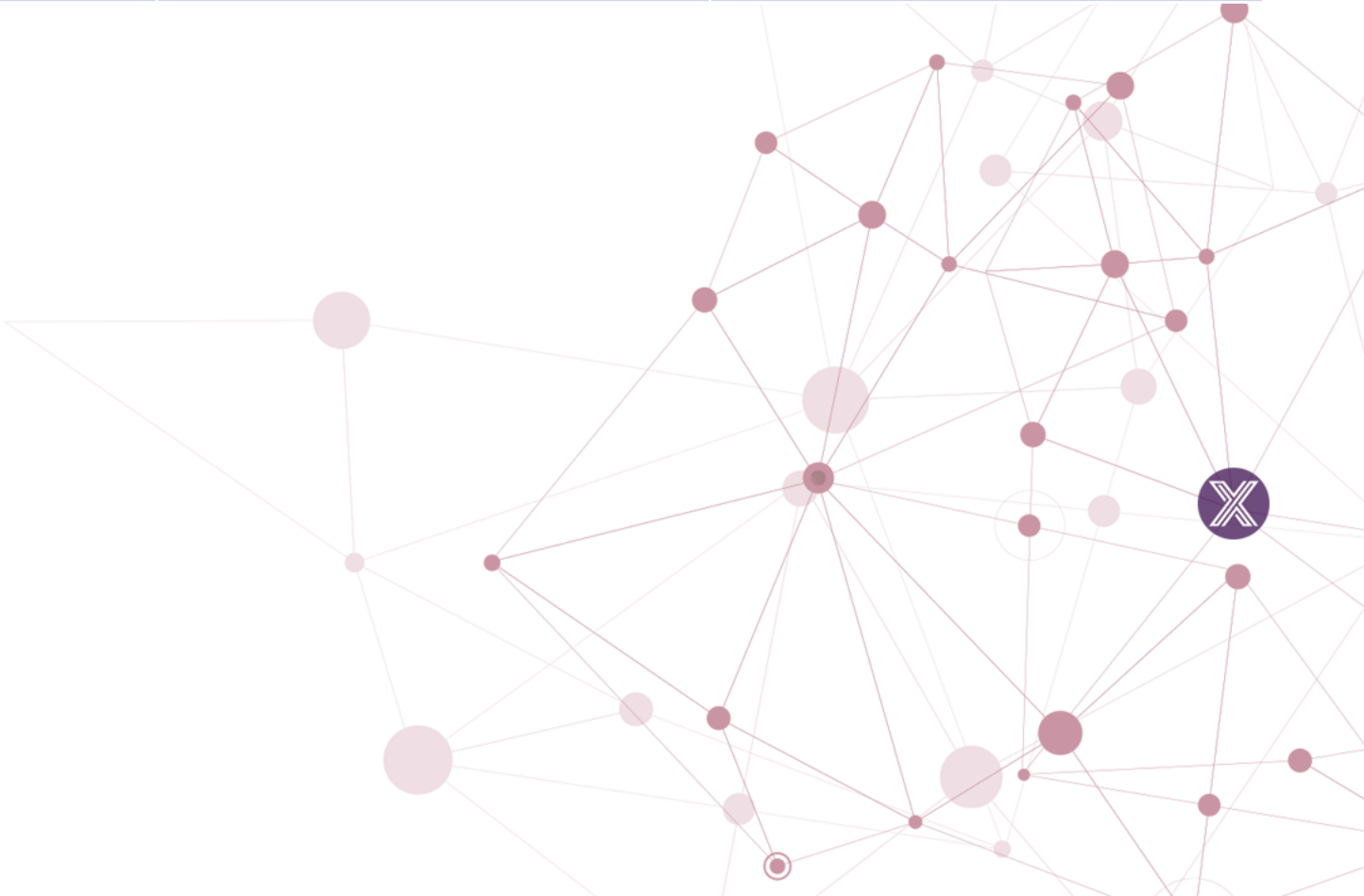


LFtools log publishing optimization (Emilio)

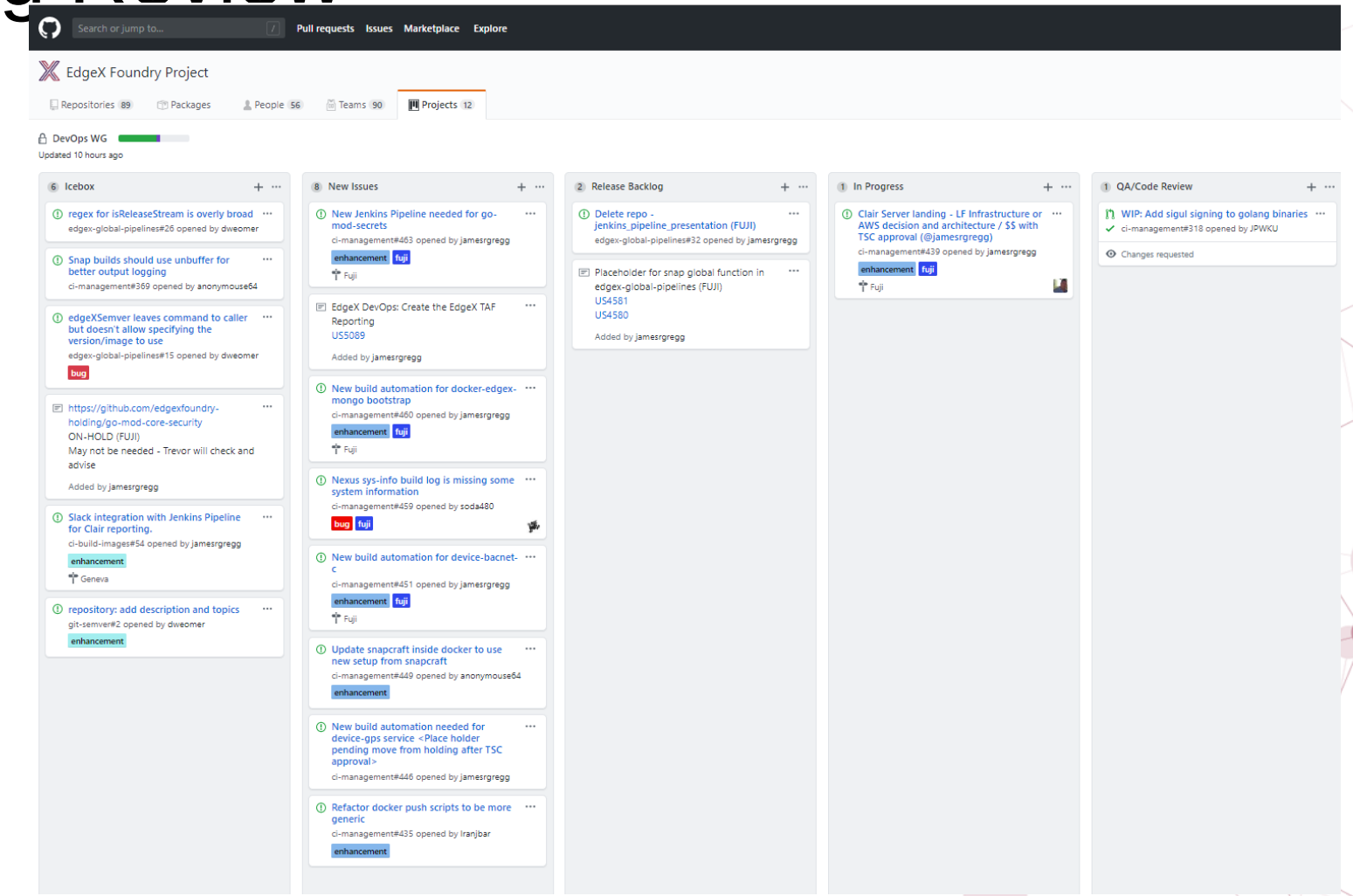
- Leverage existing docker image that includes lftools to push logs to Nexus
  - Eliminates need of installing lftools for every build
    - Saves time and cleans up logs by eliminating installation messages
- Build time reduction
  - ARM: ~4-5 minutes
  - X64: ~1-2 minutes
- Bug Fix Update – Good Job Emilio / Ernesto!
  - Fixed the bug, introduced another issue with Pipelines
    - Collaboration / Team work
    - Continuous Improvement - need better exception handling for lftools

Work Review

Helpdesk Ticket #	Description	Details	Status
IT-17020	Status Update Requested: Clair Server		WIP



Backlog Review



New Work for DevOps User Stories

- App Service Configurable – build automation (Jenkins)
  - version endpoint on SDK injected during the build

Device Services - current/coming

Open Source connectors (Current):
- Modbus (TCP/RTU)
- Virtual Device
- Random
- Grove C - ARM only
- SNMP
- MQTT

Open Source connectors (Future):
- BACnet (IP & MSTP) (Aug)
- OPC UA (Aug)
- Bluetooth (Aug)
- ONVIF Cameras (Oct)

Commercial connectors (Current):
- MQTT
- Modbus (TCP/RTU)
- BACnet (IP & MSTP)
- OPC UA
- GPS
- MEMS

Commercial connectors (Future):
- CAN SocketCAN, CANopen (Sept)
- EtherNet/IP (Sept)
- EtherCat (Sept)
- PROFINET (Sept)
- Siemens s5/s7 (Sept)

Based on TSC call, OPCUA service is now expected in Sept

Meeting Minutes

- No issues with dropping Coverity since it doesn't work with Go lang
- Share the Snyk pricing with Keith / Jim
- Set up another followup call with Rob @Snyk
- In terms of the Snyk integration with the LF Jenkins Pipeline, we would want to use it for containers as well since per the demo Ernesto saw, the functionality actually proposes how to fix Docker images and doesn't just report CVEs

James to add the go-mod-secrets to the current Sprint as per Trevor's request.

We will be using the application-service-configurable as the POC for the versioning. A new Pipeline job is needed for both of these new services.

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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: • 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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Edinburgh Release

Release Planning

Edinburgh Dates

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

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Past / Future Agenda Topics

WW27	No Meeting – US Holiday
WW28	
WW29	
WW30	
WW31	Shared Infrastructure LF Edge Umbrella Projects
WW32	Fuji Update / Performance Optimization lftools
WW33	
WW34	
WW35	
	Athens Project – proxy server for go package dependencies
	Community Involvement