DevOps Working Group

Thursday July 21, 2022
## Agenda

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Owner</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Min</td>
<td>DevOps Updates</td>
<td>Ernesto</td>
</tr>
<tr>
<td>15 Min</td>
<td>Local “make docker” optimizations for edgex-go</td>
<td>Ernesto</td>
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<tr>
<td>5 Min</td>
<td>AOB / Opens</td>
<td>Ernesto</td>
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Attendees

Participants (4)

EO  Ernesto Ojeda... (Host, Me)
L-  Lenny -Intel
EB  Eric Ball - Linux Foundation
JW  Jim White

Invite  Mute All  More
DevOps WG Update

Pipeline Related

• **#400** [Complete] Go 1.18 upgrade for Go pipelines.
• **#401** [In Progress] mkdocs support for variables
• **#402** [Complete] htmlproofer checks on each edgex-docs PR
• **#407** [Backlog] Standardize make version between Jenkins and Snap builds

Other

• **#389** [Review] Help optimize local developer make docker builds
Make docker optimization

• .git directory is large (min 160MB) and docker context takes a few seconds to copy (depends on underlying hardware)
• Currently go modules are downloaded for each docker image that is built
• Spire compilation downloads specific go version and re-downloads go modules
• Due to different cache layers, build cache, dangling images are quite large (15-22GB)
Make docker benchmarks

<table>
<thead>
<tr>
<th></th>
<th>clean</th>
<th>cached</th>
<th>dirty</th>
</tr>
</thead>
<tbody>
<tr>
<td>as-is</td>
<td>15 m 31 s</td>
<td>8 m 55 s</td>
<td>1 m 21 s</td>
</tr>
<tr>
<td>as-is &amp; dockerignore change</td>
<td>12 m 41 s</td>
<td>7 m 09 s</td>
<td>0 m 06 s</td>
</tr>
<tr>
<td>local cache 1.17</td>
<td>11 m 28 s</td>
<td>8 m 30 s</td>
<td>1 m 17 s</td>
</tr>
<tr>
<td>local cache 1.17 &amp; dockerignore change</td>
<td>10 m 06 s</td>
<td>6 m 28 s</td>
<td>0 m 05 s</td>
</tr>
<tr>
<td>nexus base &amp; dockerignore change</td>
<td>4 m 58 s</td>
<td>1 m 35 s</td>
<td>0 m 04 s</td>
</tr>
<tr>
<td>local build curl</td>
<td>6 m 51 s</td>
<td>1 m 53 s</td>
<td>0 m 09 s</td>
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DevOps Levski Scope

- htmlproofer checks on each edgex-docs PR (👕 Small)
  - Plugin in for yaml disabled – task to enable it in the pipeline always
- Makedocs – support for variables (👕 Small)
  - Research first
  - Understand impacts on Htmlproofer
  - This would help with docs as well as API docs
- Automate version bump in swagger api files on release (👕 Small)
  - Modification to global libraries; adding a new step in the release process
  - Done manually today
- Assist GUI team to automate testing – Jim to coordinate with GUI
  - Size TBD
- Create a consistent make version target in the Makefile (]!=' Medium)
  - snaps and CI/CD share the same version
  - Requires touching most repositories
- Having our own SPIFFE/SPIRE Nexus image for use in builds (👕 Medium)
  - Temporary solution until the Spire team has their own multi-arch images
- Optimize local edgex-go builds using a local image as a caching layer
Notes