EdgeX Foundry Core Working Group (plus system management and UI)

10/8/20

Attendees:

Others may have been in attendance after roll was captured.

Agenda

Old
- Issues/PRs
- V2 API update
- Conventional Commits Wrap up
- CLI update
- UI update (nothing to report right now)
- Kubernetes update (nothing to report right now)
- Dependabot checks
- Compose files with specific DS

New
  ??

Old Business

Current Status (Project board - as of 10/7)

- Backlog: 13 (+1)
- Bugs: 12 (-1)
- In progress: 2 (even)
- Under review: 0 (-2)
- Done: 107 (+16)
- New: 0 (-1)

<table>
<thead>
<tr>
<th></th>
<th>Closed Issues</th>
<th>Working Issues (new)</th>
</tr>
</thead>
<tbody>
<tr>
<td>edgex-go</td>
<td>#2729 (get device profile), #2728 (post device service), #2733 (put device profile), #2702 (metadata response examples), #2647 (improve validation logic on profiles), #2736 (check id is conflict on profile), #2738</td>
<td>2682 (notifications email enhancement), 2752 (metadata delete on profile), 2754 (metadata get on device service), 2724 (correlation id should be x-correlation-id), 2757 (no sender/recpt in SMTP)</td>
</tr>
<tr>
<td>Issue Number</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>#2721</td>
<td>(config, ping, metrics for V2)</td>
<td></td>
</tr>
<tr>
<td>#2669</td>
<td>(incorrect ordering in HTTP router)</td>
<td></td>
</tr>
<tr>
<td>#2720</td>
<td>(Post response code not correct)</td>
<td></td>
</tr>
<tr>
<td>#2697</td>
<td>(post device profile)</td>
<td></td>
</tr>
<tr>
<td>#2719</td>
<td>(get event id by id 404)</td>
<td></td>
</tr>
<tr>
<td>#2718</td>
<td>(contenttype not json)</td>
<td></td>
</tr>
<tr>
<td>#2723</td>
<td>(check id is not conflicted on event)</td>
<td></td>
</tr>
<tr>
<td>#2753</td>
<td>(refactor pkg.Encode)</td>
<td></td>
</tr>
<tr>
<td>contracts mod</td>
<td>#285 Redis bootstrap, #289 (validation of type on V2’s property value), #294 (add support to get current log level), #295 (format alternatives to log func), #309 (models contain incorrect or empty description)</td>
<td></td>
</tr>
<tr>
<td>Registry mod</td>
<td>#57 (deregister behavior)</td>
<td></td>
</tr>
</tbody>
</table>

- **API V2**

![Diagram of API V2 implementation timeline](image-url)
- Targeting core data (and some of metadata) service V2 API for Hanoi.
- Currently working on core data and metadata simultaneously.
- Major progress: core metadata - device service (creation) & profile (update/query); working profile delete; service gets
- Device service get all (first query for multiple objects) - will include pagination
- Another query parameter: label. In v1 only allowed 1 label. V2 allows multiple labels - how do we approach multiple from an and/or conditional.
- Decision: use and (so if labels X and Y are used in query, both have to be associated with the object)
- For Hanoi release cycle, developers are allowed to submit V2 API PRs and comment on PRs, but between the freeze and the release date, no merges will be done (except for bug fixes)
- Development of the V2 APIs will be done at Cloud and teams discretion with focus on completing as much of the metadata APIs as possible to allow a device service team to eventually try out the new API shortly after the Hanoi release (and once the initial clients can be created).
- For this release, we will not necessarily have all of core data or any particular service API set done. It is preferred by the core working group that we work toward API completion in a way that allows developers to be able use the new APIs for certain activities (such as onboarding a device / device service and then sending data into core data).
- Cloud was instructed to try to lay out the API development in a manner that meets this objective. And rather than trying to pin the completion of an entire service’s API set to a date, try to establish a list of APIs that are going to be
worked on for reaction by the core working group (allowing for some reprioritization where necessary).

- Delivery of V2 API for Hanoi will then be a collection of APIs across services to accomplish the goal (vs completion of any particular service API set).

**CLI update**
- Roadmap doc
  - [https://docs.google.com/document/d/1tHxomWv5C1bz7LHvrOcbSwRMSXhvBngWYhFUv5fk4JY/edit?ts=5f1efac4](https://docs.google.com/document/d/1tHxomWv5C1bz7LHvrOcbSwRMSXhvBngWYhFUv5fk4JY/edit?ts=5f1efac4)
  - Scope/planning for Ireland complete (discussion at planning meeting)
  - Current work:
    - Refactor of commands that use TOML with JSON (except upload commands on device profile which are in YAML).
    - Added support for multiple deletion of objects
    - Update of operating status/admin state

**UI Work (no updates this week - China holiday)**
- Roadmap
- Email sent on UI for device wizard. Feedback from Lenny.

**Kubernetes Work - (no updates this week)**
- See wiki for meeting details. Action items
  - #1 - YAML file (deployment.yaml) that allows EdgeX as described above to be deployed in a K8s distro environment. Some documentation to provide a how-to-use, explain what is in the YAML, outline limitations, etc. Jim to work with Gavin Lu of VMWare to see how much of this has already been done and if his team can provide this solution by Hanoi.
  - #2 - A document outlining how to take a EdgeX Docker Compose file and deploy to a K8s pod using Kompose. Malini Bandaru of VMWare is taking the lead on providing this document/how-to-guide
  - Next meeting in late October or early November when some progress has been made. Look at Ireland scope

**Conventional Commits**: PRs in for all core WG repositories. Just a couple left to get approved.

**Ireland Planning items**
- Enhancement/new
  - V2 API completed -> EdgeX 2.0 and LTS -> certification
  - Generic Error Handling - Check in pre-wire if more is needed.
  - Integrate time series database
    - which one(s)
  - K8s support (if we have more to discuss per meetings)
  - UI next steps (not a lot to discuss, just confirm resource and scope at Ireland planning)
    - Device wizard
    - Data visualization
    - SMA integration (start stop restart, service status)
  - CLI next steps
    - V2 API
EdgeX Foundry Core Working Group

(plus system management and UI)

- Testing
- Add Security?? (stretch)
- Localization/I18n (stretch)

**Core service changes or enhancements**
- Core data -> support data - third
- Message bus to core data - second
  - DS -> AS via msg bus - first
- Command information made available for export
  - MQTT trigger on that path

**Service metrics and control events**
- Tech Dept
  - Code clean up for backwards compatibility (rip out stuff that is provided for backward compatibility that won’t be necessary; example config vars that uppercase and lowercase)
  - Upgrade path - between releases (now that we are trying to go to 2.0)
    - Especially around database persistence
  - Combine command and metadata services
    - Are there other services we combine (rationale?)
    - Violating micro service encapsulation by having shared database
    - Refactor to allow separation of data concerns (and database?)
    - Need for command service is still there if it does more than proxy.
    - What is the roadmap with this service? Need to come to closure on where this is going.
  - Remove value descriptor (where do the other elements go)
    - We need an endpoint that returns the value descriptor type of information (not just going to get all the device profiles)
    - Need syntax sugar / convenience for value descriptor “stuff” - used in app service - don’t want to have to get the profile and weed through it for VD stuff
    - Value descriptor is lacking stuff like “units”
  - Archive mongo, logging, drools engine - plan to do, but no real issue to discuss (as long as Ireland is V2)
  - Sys Management list of default services (also an issue with security proxy setup)
    - How security handles it: services that setup proxy or tokens - add to env vars
  - Improve binary support - we have already content type
    - Cue this for architect discussion # - intertwine this with VD discussion - is there a better way to tag or describe what’s in the binary payload (and should we allow)
  - Analytics off binary data

- Dependabot review - all up to date
  - 4 patches merged; 1 dot release marked to revisit

- Command options for device service inclusion to compose files - Lenny handling
New Business

- Template-repo: need to make sure Wiki specifies how to use the template-repo when creating new repositories. Make sure LF is using it to create new repositories.
- Should more be in the template repository?