Architect’s meeting, November 30, noon CDT

Attendance:

Some attendees may have joined after the call started when this record was captured.

Topics

Old Business/On hold Pending Additional Work/Research/etc.

- How should we apply semantic versioning to modules? When do we update the minor and major versions of modules?
  - Decision was to release (and tag) them with each EdgeX release (major)
  - Enforce backward compatibility within a major release
  - History – Kuiper is using it; external users need to know which module version to use? Or just incrementing the version – is that good enough?
  - Decision: tag ‘em with the release number that they go with. We have the ability to retroactively tag (just a pointer to a release tag that exists out there – a “vanity” tag – align the vanity tag to the release of edgex-go).
  - Under the direction of the Release Czar as part of the release process.
    - Update the readme to indicate which modules go with which EdgeX releases
    - Bug found in the module means we do a bug release for that module (branch if changes have already been made to master for the next release – just like we do for services).
  - DevOps to make some changes CI/CD processes – go-mod Pipelines to not update on patch. (Ernesto)
  - Update ADR 10 to reflect this decision (Bill)

- How do we review/remove artifact removal (docker images in Docker Hub, snaps, etc.)?
  - This issue was decided at the Ireland planning meeting. For now, no images will be removed/archived. This issue is considered closed for now.

- Is order of event/readings being sent by a single device service important? Are there async operations in any service that could change the order of events as they are sent from a DS to core to application services (with REST, 0MQ or MQTT
What do customers desire here? Is maintained order important? What is the current state of the system and can we diagram/document that?

- This issue was also closed at the Ireland planning meeting. Adopters recognized the microservice architecture may result in messages out of order.

**New**

During the meeting of 11/30/20, these issues from the Ireland planning meeting were decided.

- **Docker image naming** - resolve naming standard we want
  - Drop “go” suffix and “docker” prefix??
  - Decision: drop docker and go and c in names.
- **What version of Alpine for Docker images** (make them consistent?)
  - Version 3.12 is the latest; stable for about 6 months
  - Decision to move to 3.12 (in second stage from in Dockerfile)
  - For build stage, we will use Go 1.15 with 3.12 Alpine where applicable (for Go services)
  - What about other Dockerfile consistency issues (for best practices) – such as use of apk to install?
    - Hadolint for Dockerfile best practices – to be researched by DevOps
    - To be handled via DevOps (or others) as separate PR process

These issues were not decided, but a priority was set on each to order discussion for future meetings.

- **Core/High** - Ensure that service location data is pulled from trusted source (i.e. not Consul) (Tony’s ADR)
- **High** - V2 API - should we add security foundation added to that (per some of earlier V2 API designs via Dell and Bryon N)?
  - Adding token to authenticate a micro service call (is this in scope for Ireland)
  - May not be needed unless all services are distributed
  - We need to explore alternatives to provide secure / locked out service to service communications
- **High** - How to handle binary data in V2
  - Is CBOR still the right way?
  - Simplicity versus performance
  - We should have new requirements/use cases to change this
  - **Jim** to find the objectors to CBOR before we cover and get any suggestions/requirements for non-CBOR
- **Med** - Address how to get device resource info (for app services and Kuiper)
  - Probably not ADR worthy
  - Either provide Lenny’s convenience APIs or tool to dig out the device resource information in the (cached) profiles
  - How/when to invalidate the cache if we use the profile-digging approach
- **Med** - Keep commit history from beginning to end (don’t squash them until PR approved)
- **Med** - Standardizing units of measure
- **Med** - Declarative Kong applicability
  - Allowing us to drop Progress DB
- But can you configure groups/users ACL
- Only supports JWT users

- **Low** - Is the Wiki the best place to document project decisions (those outside of or smaller than ADRs). This was our initial take. Should we revisit?
- **Low (must be done before V2 is done)** - Naming scheme changes for config.Clients (key name change)
  - Use consistent name that all other services use for core data
  - Consistency in the naming vs changing all the names to use service name as part of key
  - Related to system management hard coded list of services.
  - Separate issue in arch meeting – high once report back
  - Other naming issues (secret store vs secret service)
  - Opportunity to make all config/naming consistent
    - Jim take resp – get WG leads – try to prioritize this survey

- **Low** - Revisit combine core services at least at all executables in one image
  - Release would be easier but image would be bigger with more complex compose files
- **Low** - Digital twin (and LWM2M) applicability
- **Low** - Time series database support and applicability
  - Ian Johnson has an example of app service to InfluxDB export (snap in the store)