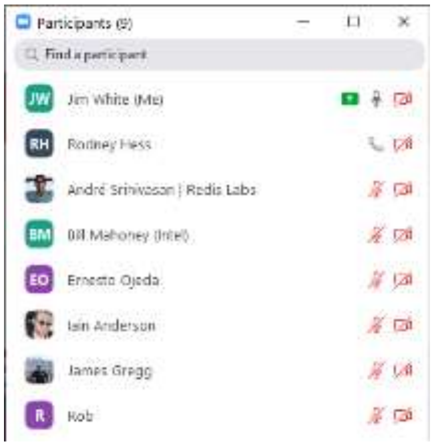
Architect’s meeting, September 21, noon CDT

Attendance:



Participants (9)

Find a participant

Jim White (Me)

Rodney Hess

André Srinivasan | Redis Labs

Bill Mahoney (Intel)

Ernesto Ojeda

Iain Anderson

James Gregg

Rob

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

Topics

Old

- Security WG - high priority review of ADR for [bootstrapping in OCI containers] requested.
  - Architect’s asked to review prior to next Architect’s meeting (Sep 21)
  - Bryon to cover highlights at that meeting
  - Leave open for a couple of weeks – target design by Hanoi

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? (comes from the Hanoi planning meetings)
  - Decision
  - Release (and tag) them with each EdgeX release (major)
  - Enforce backward compatibility within a major release
  - Scope this work for Ireland as it will impact DevOps (Jim to get with Ernesto)
- 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 infrastructure)? What do customers desire here? Is maintained order important? What is the current state of the system and can we diagram/document that?
  - Jim to do some research first. Findings: there are places in DS, Core and Application Services where messages can get out of order. If order is something that should be an option built in, it will require much work.
- How do we review/remove artifact (docker images in Docker Hub, snaps, etc.)?
  - New Docker policy will remove any image that is not pulled or pushed in 6 months.
  - This doesn’t really effect EdgeX since every container is pulled once based on last few months metrics report. But should we clean up some of these old containers?

- Discussion:
    - We are exposing ourselves to issues when the (very) old containers have security other vulnerabilities
    - Are we limiting this policy to release artifacts (ADR 0010)? Documents for example?
    - But should we still retain images that are old – like Delhi, Barcelona, etc.? Are we "pulling the rug out from under" someone?
        - We should retain the latest of old images
- Decision:
    - Allow all images to remain, but tag everything appropriately so that the "latest" dot release will be pulled on request for a specific release. For example, when requesting 1.2 (Geneva), you should get 1.2.1 (not 1.2.0).
    - Update the Docker Compose files so that the latest of the applicable dot release is obtain and not pin it to a specific image. In other words, the Compose file would request 1.2 image and not 1.2.0 or 1.2.1 for Geneva images.
    - Use an X.Y tagging schema (versus release name schema) so that it applies equally well to device services, app services, as well as the core services (out of edgex-go).
    - This will actually help with ContentTrust (DCT) concerns. It will help to enforce newest container will always be pulled.
    - Lenny and Jim to work for Hanoi release
    - Work has been completed on compose files to use latest patch from a dot release without explicitly naming the patch (where possible – Vault was an exception due to improper tagging).
- As for what to do with old (very old) images, let's check what are other projects doing in this case (Kong, Consul, Vault, …)?
        - Kong: has a latest tag, but also has every release going back to pre-1.0 release candidates
        - Vault: has a latest tag, but also every image since 0.6.0 release (the first pre-1.0 release)
        - Consul: has a latest tag, but also every image since 0.6.4 release (first pre-1.0 release)
        - Kura (EdgeX competitor): has a latest tag, but only 4.x releases including milestones and release
    - Also consult with community and adopters; what do they expect from us? Accenture, ThunderSoft, …
    - Jim to take this research and poll of adopters
    - Adopters have been polled. Other organizations (Kong, Consul, Vault, etc) are not removing images (for the most part – there are a few exceptions)

New

- 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?

- Per the Hanoi planning conference - we need to better define "bound checking" so that a design (and eventual implementation) can be brought forth to meet the requirements
  - Currently considering limiting the number of operations that can be performed on a service (like a device service) over a period of time or setting the max request size (that lends to DoS attacks)
  - Can the solution be more globally applied?
  - Bound checking – defined by Iain
    - Limits on resource usage
    - Maximum number (simultaneous) and sizes of requests
  - Handle via configuration
    - Make it configurable because there are defaults in the language libraries already
    - Expose them for user configuration of the services
    - Apply to any service
  - Validation (bound checking on params) is part of V2 validation
  - Decision: implement for Ireland -> configurable of maximum HTTP request size and simultaneous requests
  - Global configuration-> topic for Ireland planning meetings (and pre-wire)
- Incorporation of Vertical Solution WG adopter presentation feedback
  - Jim to collect and present after all 5 presentations
  - Adopters to be invited to F2F
  - Reviewed the deck of requests (implicit/explicit) from the 4 adopters put together by Jim
  - Jim to make the requirements in a Google Doc and share with everyone
  - First task is to have everyone provide input into what should be left out and what should be in consideration for future roadmap items (Ireland and beyond).