Core Working Group Agenda 2/21/2018 meeting

Attended by: Rodney & Brad (Beechwoods), Alan Bennet, Riaz (RSA), Jeremy (LF), Tony (Canonical), Alberto (NOV), Avichal Agarwal, Salim (VMWare), Keith (IoTech), Jim & Trevor (Dell). There may have been in attendance later in the meeting after the list of attendees were captured.

Discussion and action items as a result of meeting in RED.

Old Business

DevOps issues/updates

- Automation of black box tests is priority 1
  - Not sending emails yet but ready to go.
- Go/Arm build work underway is priority 2
  - Daily jobs to push to Nexus/Docker Hub/etc. being worked
- Next up – Native Arm build and deploy, test (on Cavium boxes).
- Currently working on verify jobs for mono repo of Go – done today
- Then work on merge jobs, and that will also do Arm compilation
- Then work on move to Arm on Cavium hardware for native Arm testing

California Preview

- All working!!! Yeah Fede, Drasko, Jeremy, and so many others for the effort
- Some small stuff remains – like Consul integration – but a great start!
- Docker Compose file now available for the preview (use 0.5.1 version)
- Closing this item.

Current Work Tasks

Remaining work items now in Github Projects/issues and listed below. No meeting time to discuss unless there are significant updates

California Release Work Tasks

- Security & System Management – per WG task list (Jun – collective but Jim leading)
- Integration of System Management APIs into micro services (Jun – Dell)
- Core, Supporting, Application services in Go (Dell, Cavium, Mainflux, others?)
- DS SDK in Go (mid Feb, Tony)
- DS SDK in C (April, IoTech)
- ? number of DS in G and/or C (???)
- Blackbox tests for all services (and SDK??) (End of May, IoTech)
  - Opportunity for other companies to make contributions – good area for new groups to participate.
  - **Jim Action** – poke participating/community companies for help
- Performance tests (and meeting performance targets) (IoTech)
- Everything runs and is tested on ARM (Jeremy/IoTech)
- Environment – what target environment to do the tests (lab equipment, tools, software, cloud product availability).
- Documentation to Github – (Iotech)

Face-to-Face Action Items

- Go Lang Core/Export Services connected to Consul, config files in seed (Jim/Fede/Drasko, May 1st)
  - We load every property for all images (local or Docker) you get every config element – now and issue

- Cross compiling for all Go Lang artifacts to include Go Core Data, Metadata, Command, Export client, Export distro, and config seed use (Jeremy, Jan 31st)
  - Part of what is in the PR for review
  - Only for Arm 64 for now per F2F
- Arm native environment (Fede, Gorka, Jeremy, End of April)
- Blackbox testing on Arm native environment (Andy F, Jeremy, End of May)
- Wiki page on EdgeX on OS'es – attestation of testing page (TBD, End of May??)
- Performance target tests – the Pi Tests (TBD, End of May??)
- Setup "Sithub" (Jeremy, first week in Feb)
- Samsung Code moved to Sithub (MJ, 2nd week in Feb)
- Samsung Code reviewed and processed (TBD, TBD)
- Naming, availability, startup/cleanup service architecture draft (Jim W, 3rd week in Feb)
- Device Service requirements doc (Tony, mid Feb) – available for review. Meeting this afternoon to discuss further.
- Go Code reorg/mono repo (Cavium and Mainflux, TBD) – Monday 26th will be creation day!

Vertical Solutions Group Requirements review

- Oil/Gas Project in Vertical Solutions WG has identified "gaps" in EdgeX for their specific industry focus. [Thanks Alberto Dellabianca – NOV!]
- What is our community's reaction to this analysis?
  - Which items do we add to the roadmap?
  - Which items appear more of a fit to be solved by the Vertical Solutions WG itself?
  - Under what circumstances do we add them to the roadmap.
  - Goal is to provide recommendations back up to the TSC for consideration adoption.
- I'd like to see if we can't discuss and then come to some consensus on the following categorization:
  - Add to roadmap – short term/immediate (California release)
  - Add to roadmap – near term (within two releases)
  - Add to roadmap – long term (important feature to consider, but out past current resource and objective planning – barring addition of many more resources)
  - Need more information from NOV or Vert Sol WG.
  - Out of scope - does not appear to be aligned with current EdgeX goals/objectives
- See https://wiki.edgexfoundry.org/pages/viewpage.action?pageId=7602886 for Alberto's list. Summarized below
  - OPC-UA device service
    - Being done by Samsung. We'll evaluate and potentially bring it in as one of the supported services.
    - Decision – on roadmap for short term as far as Samsung contribution is concerned.
  - OPC-DA device service
    - Market dynamics will answer whether we (as part of Core WG and EdgeX TSC) adopt this going forward, but for now, let the Vertical Solutions WG or 3rd party drive and submit this as a contribution.
    - Decision – out of scope for now, but will readdress if a contribution or VS WG submit. Will also provide guidance and advice to any group willing to do this work.
  - Modbus device service improvements

- We need to address the Java Modbus service, to what extent we can, for California release. Keith and his team are doing that an plan to submit fixes back to the community. Beyond fixes identified, whether an improved service is contributed or kept as a commercial offering is still to be determined.
- Decision – look for IoTech fixes for California. Beyond these fixes, make decisions based on the longer-term usefulness and support of the Java DS in general. Revisit larger refactoring or redo in C/Go as future consideration as with all existing Java device services

- Zigbee, LoRa, DDS, and Profinet device services
  - On the level with OPC-DA
  - Decision – out of scope for now, but will readdress if a contribution or VS WG submit. Will also provide guidance and advice to any group willing to do this work.
- GPS device service (or otherwise tag reading data with location information)
  - Being able to tag data with location (whether lat/long from a GPS or other location information is an important feature that EdgeX should address
  - Decision – add this to the technical roadmap for consideration as part of Delhi release
- User interface for configuration
  - A user interface, at least a basic one (for demos and such), makes EdgeX more usable, but should we do this as open source? This fringes on areas of commercial offerings. Also, the use case and needs of the UI are going to be different, so even a basic UI may not hit the mark (example, there is a dashboard type of UI for demo-ing and visualizing data and there is a UI to manage and make configuration easier). Some of these needs/efforts overlap areas like system management and their might be open source technology to address some of this already.
  - Decision – out of scope for now. In the longer-term roadmap, this might be a nice to have.
- Rules engine replacement – a lighter/easier CEP
  - Clarification from Alberto – no specific solution has been requested or suggested as part of the gap analysis
  - There are many open source analytics engines out there, but how many are suited to edge analytics is unclear. Therefore, it could be a road map item for long term (Edinburgh or later). Having said that, this is also another area of suspected commercial value add (some from members of our own community like Foghorn). For the most part, EdgeX today should be concerned with connectivity and enabling other services and this seems to fall outside of that purview.
  - Decision – out of scope for now. We may want to work on how to make it easier to wrap or incorporate 3rd party capability in the future.
- Logging – need to be able to specify persistency policies for type of logs
  - Alberto clarification - some micro services need to keep their logs forever. Others just need a cache for logs. Ex: command would keep its logs forever.

- There appear to be many additional needed features (from use case needs such as indicated by oil/gas on data retention, cleanup, and those of security needs for doing more robust monitoring) that indicate the logging service features and APIs be relooked (and presumably re-implemented)
- Decision – relook the logging service capabilities and APIs for the Delhi release. We may also want to track this as an issue in Github Projects today.
  - **There was not enough time to look at the remainder of these items. Pushed these to discussion in the next meeting.**
    - Export data from date – to date operation (historical data)
    - OSI Soft Pi Export connector
    - InfluxDB Export connector

Documentation
Revisit in March

- Reviewed by Andy last meeting 2/15 – thanks Andy. Looking good
- Current game plan:
  - IoTech to clean up til March 1
  - Review of IoTech repo target Mar 1 – 30
  - Work with Brett to track applicable changes in Wiki during the review period
  - Hold a pre-day meeting just before the cut over
  - Target early April cut over

Architectural Issues
Queued for upcoming discussions – No time to discuss in this meeting, pushed to the next meeting

- Where should RAML live? Maybe we need API repo? Maybe APIs live in repo of code source (Java or Go – whatever the ref impl is). Architecture/technical item for future discussion.

New Business

License File issue - No time to discuss in this meeting, pushed to the next meeting
From Tony – how do we get appropriate license files to project artifacts (Docker containers and such)?

Other open items?