Smart Data Transaction for CPS: Weekly Meeting Notes

Note:

The Smart Data Transaction blueprint is currently on hiatus and weekly meetings are not being held. You can still contact us through the mailing list: sdt-blueprint@lists.akraino.org

Weekly Meeting 11 Apr 2023

- Considering release 8 collaboration with CPS Robot Blueprint family but still need to get our acts together.
- Upcoming meetings:
  - 25 Apr 2023 will be canceled due to overlap with IOWN Global Forum 3rd Annual Members' Meeting
  - 02 May 2023 will be canceled due to holiday in Japan
  - 09 May 2023 will be canceled due to travelling to Open Source Summit North America on that day
  - So next week will be the last regular meeting we can have for a month...

Weekly Meeting 04 Apr 2023

- Planning a light-weight release 8. See the presentation from last week's Spring Summit for some ideas.
- Resourcing from Fujitsu will be tight this quarter.

Weekly Meeting 28 Mar 2023

- Presenting intro to SDT and release 7 at the Spring Summit, day 1. Check the schedule

Weekly Meeting 21 Mar 2023

- Canceled due to holiday

Weekly Meeting 14 Mar 2023

- Will give a talk on SDT and Akraino Release 7 content at the spring summit.
- Next week's meeting canceled due to a holiday in Japan.

Weekly Meeting 07 Mar 2023

- Submit proposal to Akraino Spring Summit?
- Main Fujitsu resources are in Edge Service Enabling Platform in the coming year, but still looking for some small-scale updates that can be made.

Weekly Meeting 28 Feb 2023

- No topics. Fujitsu still in planning phase.

Weekly Meeting 21 Feb 2023

- No topics on the agenda today. Fujitsu will be setting resource allocations and plans in the beginning of March, which will allow the project to firm up plans for R8.

Weekly Meeting 14 Feb 2023

- Release 8 planning (Upgrade EdgeX? Data lake functionality? Video?)

Weekly Meeting 07 Feb 2023

- Smart Data Transaction was marked TSC approved on the Release 7 Planning page 02 Feb 2023
- No plans for release 8... yet.

Weekly Meeting 31 Jan 2023

- Waiting for results of TSC vote and release 7. Will be brainstorming for release 8 in upcoming weeks.

Weekly Meeting 24 Jan 2023

- Upstream subcommittee approved 19 Jan 2023
- Presented at TSC but there were not enough TSC members available for a vote, so an email vote will be held

Weekly Meeting 17 Jan 2023

- Sent reminder to upstream subcommittee
- Will ask for approval at this week's TSC meeting

Weekly Meeting 10 Jan 2023

- Security subcommittee has approved for R7.
    - However, there was some discussion on the mailing list about handling of CVEs which have not been patched by the distro (Ubuntu). It appears these can receive exceptions, but confirm with Daniil & Wenhui.
- Upstream subcommittee has not responded yet.
    - Confirm with Jim.

Weekly Meeting 03 Jan 2023

- Canceled: New Year's holiday in Japan

Weekly Meeting 27 Dec 2022

- Canceled: Waiting for subcommittee review results.
- Next week's meeting will be canceled due to the New Year's holiday in Japan.

Weekly Meeting 20 Dec 2022

- Canceled: No issues to address.
- R7 planning page updated and subcommittee review requests sent on 19 Dec 2022

Weekly Meeting 13 Dec 2022

- Canceled: Colin attending Okinawa Open Days

Weekly Meeting 06 Dec 2022

- Meeting canceled: Colin is attending OSS-Japan conference
- Note: Next week Colin will be at Okinawa Open Days (13th to 15th), so the meeting will be canceled **again**. Sorry.
- 20 Dec 2022 hopefully will be post R7 approval. We **may** have a meeting to address release-related issues if necessary.

Weekly Meeting 29 Nov 2022

- Canceled (document preparation in progress)

Weekly Meeting 22 Nov 2022

- Progress report
    - Fujitsu/Colin will move the remaining document edits forward and submit to subcommittees for R7.
    - Expect to skip next week's meeting as only above prep remains.

Weekly Meeting 15 Nov 2022

- Progress report
    - Document updates complete. Colin will confirm drafts.
    - JFTT to look at possible targets/improvements for R8, and revisit issues that were marked low priority for this release.

Weekly Meeting 08 Nov 2022

- Progress report
    - Install document last few sections updating
    - Once everything is lined up, we will submit for subcommittee review

Weekly Meeting 01 Nov 2022

- Progress report
    - Install document editing continuing
    - Updated install scripts ready to commit, Colin to code review
- Holiday in Japan this Thursday 03 Nov 2022 and Colin also taking 04 Nov 2022 off

Weekly Meeting 25 Oct 2022

- Progress report
    - Currently confirming updated install scripts
        - The rest of the document update has been on hold while the scripts were updated
    - Started updating architecture document and block diagrams

        - Block diagram and wording updates are complete, for details check the page history

Weekly Meeting 18 Oct 2022

- Progress report
    - BluVal completed
        - Lynis can't check for update. Possible proxy issue? Include workaround in tests doc.
    - Install document update in progress
    - Architecture document still needs confirmation
- Action items
    - Follow up on install scripts (do they need updating or workarounds?)

Weekly Meeting 11 Oct 2022

- Progress report
    - BluVal results being updated. Lynis has some todo items remaining.
    - CI/regression tests are updated and Colin is checking.
- Action items
    - Data sheet will be updated by Colin.
    - Move on to release notes and install document. Copy over from release 6 and check what needs updating.
    - Check if architecture document needs updating.

Weekly Meeting 04 Oct 2022

Meeting canceled

Weekly Meeting 27 Sep 2022

- Progress report
    - Updating test document. Regression test info has been updated except for notes and Nexus links. BluVal info has not been updated (currently a copy of R6).
    - Colin will check BluVal results as soon as possible and update JFTT on any additional work needed.
    - If the test document updates are blocked on Colin, JFTT will review release notes and install documents from R6 to determine what needs updating there.
- Comment from Tina: Check out the LF Edge Catalog for improving ease of deployment. Consider joining.
- Next meeting 04 Oct 2022 will be canceled due to a holiday in China

Weekly Meeting 20 Sep 2022

- Progress report
    - IT and BluVal complete, compiling results
    - Next will be updating documents for R7, starting with the test documents.
- Three day Akraino event starting tomorrow (unfortunately no SDT talk, but Fukano-san will have a talk about the CPS Robot Blueprint family)

Weekly Meeting 13 Sep 2022

- Progress report
    - BluVal `vuls` test done, continuing with other BluVal items
    - Compiling a list of other integration test items to run

Weekly Meeting 06 Sep 2022

- Progress report
    - Coding and unit tests complete, some design documentation remaining.
    - Next sprint start integration tests and BluVal. Consult the R6 documents for information on the type of tests required and BluVal procedure.
    - Test planning and Q&A concerning tests expected to continue this week.

Weekly Meeting 30 Aug 2022

- Progress report
    - Colin is still confirming test results from image analysis but don't foresee any problems
    - Problem getting eKuiper to send notifications, still investigating
    - Calling notification API from source is working, so in worst case we can use that directly

Weekly Meeting 23 Aug 2022

- Progress report
    - Image analysis function is implemented, now testing
    - Can probably move on to automatic actions based on image analysis in next sprint
    - Colin will communicate basic spec for automatic actions function to the team later today

Weekly Meeting 16 Aug 2022

Meeting canceled

Weekly Meeting 09 Aug 2022

- Progress report
  - Compile of images based on r32.6.1 is working
  - There is an intermittent issue where CUDA APIs stop responding after 1.5 or so hours of use
  - The problem above will be investigated in the background while we continue with the coding and tests
  - If coding completes next week, move on to integration testing of the completed modules (rule-based actuation can wait)
- Colin is on vacation next week so the weekly meeting will be canceled

Weekly Meeting 02 Aug 2022

- Progress report
  - Have had success building containers on l4t-base:r32.4.3
  - Want to upgrade to r32.6.1 to match the version on the Jetson devices
  - Once that is done, move on to quickly try out the OpenCV and/or CUDA interfaces we're going to use
- Check status next week and decide how to progress, especially while Colin is on vacation

Weekly Meeting 26 Jul 2022

- Progress report
  - CUDA-enabled programs work when directly compiled on Jetson, but not in containers.
  - Seems to be a version mismatch problem. The CUDA version in the containers we are using is 11.7, and the Jetson version is 10.2.
  - Unfortunately, there doesn't seem to be ARM support for CUDA base containers from NVidia at version 10.2 of CUDA.
  - Looking for alternatives. Worst case, we may need to build a CPU-only OpenCV container and leave GPU support for later.
  - Keep trying to get the GPU version working until sprint end 02 Aug 2022, and if we can't get it going, switch to CPU-only for next sprint.

Weekly Meeting 19 Jul 2022

- Progress report
  - Coding and unit test of data sharing complete
  - Currently examining
    - How to build containers that contain the CUDA and OpenCV libraries plus drivers for GPU access
    - How to enable GPU access for containers on the NVidia Jetson
  - Design of a simple shape-counting app using Go-CV in progress
  - We are having trouble calling CUDA-enabled Go-CV in the container, with what looks like a driver and library version mismatch. Investigation is ongoing.
- Investigation and design of the app scheduled to take the next sprint, until 02 Aug 2022

Weekly Meeting 12 Jul 2022

- Progress report
  - Design of data sharing pretty much complete, maybe a few changes from review comments.
  - Coding and testing should be complete today, depending on effect of design review comments.
  - About 1wk ahead of schedule, we should be able to look into image analysis. Issues include:
    - What, exactly, are we going to do for analysis?
    - How to use the GPU in the system (can it be done from a container on K8s?)
  - Will need to sync up on those issues and any others that come up.
- Note: Release 7 planning page is up.

Weekly Meeting 05 Jul 2022

- Progress report
  - Implementation of modified device-camera-go for SDT is done (will review)
  - Test case for snapshot reading from camera devices is done (will review)
  - Next sprint (ends 19 Jul 2022) combines design and implementation/test for sharing snapshot data between nodes using the sync-app
- Colin will be on summer vacation from 11 Aug 2022 to 21 Aug 2022. We'll work on a plan for work done in that period.

Weekly Meeting 28 Jun 2022

- Progress report
  - Investigations of device-camera-go and device-onvif-go are done. We have confirmed we can get snapshots from our camera devices with either device service.
  - device-onvif-go has a problem with AuthMethod "digest"
    - Will open a separate issue and put that aside for the moment
  - Since we have slightly more confidence with device-camera-go, we will continue with that service for now
  - Hoping to finish the service integration and CT steps by the end of this sprint (05 Jul 2022)

Weekly Meeting 21 Jun 2022

- Progress report
    - Retrying image pulls worked well enough to build local device-camera-go
    - Not clear if there is any good solution for overriding the camera IP at run time
    - Had trouble getting device-camera-go to retrieve images
        - DeviceResources does not appear to be populated?
        - Having trouble debugging (e.g. because of image rebuild problems)
        - Colin will look into the problem as well to see if he can offer support
- Release 6 PR is on the marketing page (Smart Data Transactions for CPS section)

Weekly Meeting 14 Jun 2022

- Progress report
    - Mid-sprint 2, focus on design of image acquisition
    - Some trouble with Docker rate-limiting of anonymous image pulls
        - Will investigate possible solutions offline
        - It should be possible to override the camera IP address with an environment variable setting, possibly, which would eliminate the need to rebuild the image
    - The Python algorithms for using OpenCV don't seem to translate well to Go, producing less acceptable results
        - Share updates in the ticket with details
- IP cameras installed in test environment
- Will be moving files in the shared directories between 11:45 and 13:15 JST today
- Tina requests if we can add something for SDT to the Release 6 Marketing, hopefully before the NAOSS (6/20)

Weekly Meeting 07 Jun 2022

- Progress report
    - Reviewed function block definitions. Looks ok.
    - Next sprint (until 6/21) focuses on design of camera device and image reading, sprint after that (until 7/5) will be coding/CT for same.
- Install IP cameras on Thursday 09 Jun 2022

Weekly Meeting 31 May 2022

- Meeting was held via Fujitsu's Teams account due to problems with Zoom
- Progress report
    - Architecture diagram and document updated on Wiki
    - Working on functional block list
    - Check the image analysis example in issue #63 on the local GitLab

Weekly Meeting 24 May 2022

- Progress report
    - Initial sprint plan and backlog complete.
    - Architecture diagram and function block diagram updates basically complete. Review today.
    - Running ahead of schedule. Pick up new tasks from the backlog for next sprint as we go.
- Cameras will be added to the lab setup as soon as we get the AC adaptors for the cameras.
- Meeting with Tina tomorrow at 9AM JST to discuss new blueprint proposal.
- From Tina: Reminder to update the R6 marketing case studies.
- From Fukano-san: Have updated the LF Edge Commercial Ecosystem presentation.

Weekly Meeting 17 May 2022

- R7 Backlog list format ready. Will hold another meeting this week to discuss with JFTT and fill it in.
- Sprint planning should be complete for next week's meeting.
- We will be using the weekly meeting for progress reports from JFTT, and every two weeks a sprint review.
- We will be adding camera devices in the lab setup soon. Will let the team know when they are ready.

Weekly Meeting 10 May 2022

- Zoom login problems; meeting held via Teams
- Release 6 is apparently delayed as other blueprint teams are still updating their release requirements
- SDT work for release 7 will kick off tomorrow. Shared access details for the Fujitsu internal lab environment.

Weekly Meeting 03 May 2022

- Cancelled due to holiday in Japan

Weekly Meeting 26 Apr 2022

- Progress report:
    - Release 6 planning table is all green for SDT
    - New lab setup:
        - 2 Jetsons now available
        - Gitlab, Jenkins, master and deploy VMs up

        - Need to configure external access (port forwarding) for Jenkins and deploy VM
        - Blueprint not installed yet

Weekly Meeting 19 Apr 2022

- Progress report:
    - Conditional approval granted at TSC meeting last Thursday
    - Fixed security issues and have been approved
    - Work on release 7 will officially start 11 May 2022
    - Gitlab server up and running in new lab
    - Remaining Jetson and VMs will be configured in the next week or two

Weekly Meeting 12 Apr 2022

- Progress report:
    - TSC meeting this week to get approval for release 6
    - Confirming security and upstream subcommittee approvals
    - New lab setup: 1 Jetson configured, gitlab being set up now

Weekly Meeting 05 Apr 2022

- Anylog demo
    - Looks interesting for a replacement (possibly optional?) for the data sync component
    - Colin will send Moshe mail on more areas to discuss
- Progress report:
    - Gerrit repo created and source uploaded. Link added on Wiki.
    - Double check the table is filled in for release 6

Weekly Meeting 29 Mar 2022

- Progress report:
    - Gerrit repo approved by TSC, ticket opened
    - API form should have been reviewed 25 Mar 2022 but meeting notes not updated yet
    - TSC review scheduled for 14 Apr 2022
- Moshe will be joining next week's meeting for a more detailed demo of Anylog

Weekly Meeting 22 Mar 2022

- Progress report:
    - Documentation review with Ike completed. He indicated approval.
    - Security results posted to the Release 6 page
    - Moshe from Anylog joined in and we will be looking at ways to integrate Anylog's technology in this or other blueprints for release 7
    - Looking at pushing source to Gerrit. Contacted CI subcommittee chair based on the CI Process for new projects.
        - Tina suggested a TSC motion is needed to create a new project repo. Will try that.

Weekly Meeting 15 Mar 2022

- Progress report:
    - Logs pushed to Nexus and links updated in test document
    - Will be reviewing docs with Ike later today
    - API form just uploaded and Jeff has updated the API list page and the Release 6 release planning page with entries for SDT
    - Will update the security results on the wiki when a Release 6 page is up

Weekly Meeting 08 Mar 2022

- Progress report:
    - Set up mailing list for Smart Data Transaction: sdt-blueprint@lists.akraino.org
    - Test document complete except for links to Nexus
    - Will be pushing logs to Nexus in the next couple of days
    - Review request sent to document subcommittee
    - Security subcommittee review required
    - After that, the process subcommittee should forward recommendations to the TSC

Weekly Meeting 01 Mar 2022

- Jim from Upstream committee joined and we discussed workarounds and inclusion in the next Akraino release
    - We will need to take responsibility for maintaining any patches
    - Clearly document the patches
    - If those conditions are met inclusion in release 6 should not be a problem
- Progress report:
    - All documents complete except test document BluVal section
    - Lots of delays trying to get BluVal done in our test environment. DNS and proxy seems unreliable via the intranet.
    - Pushing results to the Nexus requires a separate account. Should we create a non-corporate (Akraino?) account for the blueprint?

    - Start sending documents for review by document committee
    - Check what other reviews might be required

Weekly Meeting 22 Feb 2022

- Progress report:
    - Documentation mostly complete, except for Test Document
    - Having trouble getting BluVal tests running in our test environment. Seems to be intranet issues.
- Will join the EdgeX security committee meeting Wednesday to discuss addressing upstream issues
- Asking Jim from Upstream committee if I can join the next committee meeting

Weekly Meeting 15 Feb 2022

- Progress report:
    - Phase 5: Security measures have been successfully enabled, moving on to BluVal etc. tests
    - Problems with EdgeX security implementation components & Kong have been addressed with workarounds (including a patched Kong image)
    - Contact established with Bryon Nevis through Jim White. Following up on Slack and possibly later to attend the security committee meeting.
    - Architecture document drafted. Will need to be reviewed for release.
- Will be contacting Jim Xu from the Upstream & Downstream Sub-committee to discuss impact of EdgeX and Kong issues on the blueprint's inclusion in release 6.

Weekly Meeting 08 Feb 2022

- Progress report:
    - Phase 5:
        - K8s security: Confirmed API protected by certificate and user account
        - Docker: Enabled TLS security for private repository
        - EdgeX: Enabled security measures provided by the github edgex-compose repository
    - EdgeX security measures have encountered some difficulty because of problems, mainly from using k8s instead of docker-compose (e.g. edgex-go #3852 and #3851)
        - Currently stuck on an issue with Kong reporting a DNS error looking up "localhost"
        - Will try contacting mailing list and/or TSC chairs to see if anyone has any experience with this kind of error
- Prepare a demo, tentatively scheduled for 2/18

Weekly Meeting01 Feb 2022

- Progress report:
    - Phase 4 complete, temperature sensor data relayed via LoRa to MQTT broker, tests implemented
    - Phase 5: Security measures for K8s, EdgeX, and Docker under investigation, planned implementation by 2/8
    - Akraino document preparation started
- Documents need to be reviewed by the sub-committee

Weekly Meeting 25 Jan 2022

- Progress report:
    - Device SDK Working Group meeting: LoRa device service to be submitted to edgex-examples
    - New Jetson devices (x4) arrived 1/20.
    - Phase 4 will complete today, moving on to Phase 5 (security, CD) and document preparation

Weekly Meeting 18 Jan 2022

- Progress report:
    - Phase 4, LoRa and sensor integration, in progress, planned completion 1/25
    - Tasks for release 6 listed in progress report (slide 9): Documents, API form, BluVal + security checks are main items
    - The full lab setup is configured and now we are working on device support and a pass-through app on the sensor nodes
    - We'd like to build a second lab setup but need to add two more Raspberry Pi devices for that, also LoRa dongles if possible (meet with Fukano-san on Wednesday to discuss further)
- Device and Device SDK Working Group meeting was moved to 1/24

Weekly Meeting 11 Jan 2022

- Progress report:
    - Phase 3, basic inter-node communication, complete 1/7 (1wk delay)
    - Update of tasks for release in progress
    - Phase 4, LoRa and sensor integration, LoRa hardware arrives 1/11, sensor hardware 1/17
    - Preparing materials for Device and Device SDK Working Group (next Monday)

Weekly Meeting 04 Jan 2022

- Cancelled

Weekly Meeting 28 Dec 2021

- Cancelled

Weekly Meeting 21 Dec 2021

- Progress report:
    - Phase 2, ARM-based edge node, complete
    - Phase 3, multiple edge nodes & inter-node communication, in progress

Weekly Meeting 14 Dec 2021

- Cancelled

Weekly Meeting 07 Dec 2021

- MBI1: Kickoff, architecture & software stack review
- Progress report:
    - Phase 1, VM-based Kubernetes cluster running EdgeX+Mosquitto, basic CI/CD w/ Jenkins, complete