

# Jakarta Pre-Wire

June 4, 8am-11am PDT

## Agenda

- Introductions – if needed
- Logistics, ground rules and expectations of our pre-wire meeting
- Address any Ireland high priority release items in advance of the closing dev weeks
- Ireland 2.0.1 release
  - Timing
  - What's in it?
- Jakarta Release
  - General scope
    - LTS release
    - “bug fix only”
  - Timeline
    - Hold to early November release
    - Short dev cycle (3+ months of development – with a patch release in the middle)
  - Potential Scope Exploration
    - What new features, enhancements, etc.?
    - What tech debt/clean up remains from Ireland?
  - ADRs to implement in Jakarta

## Attendance

Some people may have joined the meeting after attendance was first captured.

## Logistics, Ground Rules and Expectations

- Attempt to break every hour for 5 minutes (please keep me aware of the time)
- Don't be shy about interjecting your opinion/thought (we may not always call it out explicitly)
- Purpose of this meeting:
  - Not to scope (done during our planning meeting), but outline all the possible scope for this release. What's being considered vs. what is planned, tasked and coordinated
    - This is where big ideas start – but in order for them to actually take root, they must be accepted as “possible” here and coordinated/tasked as part of the planning meeting later in June.
    - Allow open debate on the future of the project, key features, technical/architectural direction
    - Identify high priority work and eliminate potential work that is beyond this scope
    - Identify areas where research or design/architectural ideas are necessary in advance of the Jakarta scoping. Owners will be assigned to present more details in the planning meeting.

- Highlight pain points/issues identified by this (Ireland) release and attempt to offer potential solution options (for determination in the planning meeting)
- Expectations
  - Pave the way for a smooth Jakarta planning meeting
    - Jakarta planning becomes a refinement of the overall potential scope collected in this meeting
    - Focus technical debate around the scope of the single release
    - Focus architectural/design questions to the immediate scope
  - At the conclusion of this meeting we have
    - Identified the larger “potential” release scope (if we haven’t talked about it here, there would have to be a very big change to consider it for Jakarta)
    - Identified technical issues we must solve (or start to solve) with this release and arranged presentation from opposing options to present at the planning meeting.
    - Set the tone for the major theme(s) of the Jakarta release

## Ireland High Priority Items

Any?

## Ireland 2.0.1 Patch Release

Agreed by the TSC for later this summer (tentatively August) – per 3/24/21 TSC meeting

### Purpose of this Patch Release (Agree??)

- Correct inevitable bugs that will fall out of this very large upcoming 2.0 release
- Release independent artifacts that could not get done by the 2.0 deadline (example CLI, UI, etc.)

### Proposed Schedule (Agree??)

- August 18, 2021 (Wednesday before Labor Day in the US)
- Freeze on or about August 11
- Allows 6 weeks for patch release work
- Allows 10 weeks for Jakarta release work to complete
- **Would we maintain 2 branches (one for patch release and one for Jakarta)?**

### Proposed Contents of this Patch Release (Agree??)

- Bug fixes
  - **Any and all or of certain criticality??**
- Any Device Services not upgraded to V2 APIs (Camera, GPIO, CoAP, LLRP)
- Any Application Services not upgraded to V2 APIs (configurable?)
- EdgeX examples not upgraded to V2 APIs (in edgex-examples repos)
  - Those not going to be upgraded should be annotated explicitly as 1.x only
- New GUI
  - May have a beta release with 2.0
- CLI V2 (refactor and upgrade to V2 APIs)
- Removal of V1 or otherwise “dead” code

- Code for the actual V1 endpoints
  - Code behind the V1 database clients
- Event tagging in C Device Services (done for Go DS)
- IOTech's DCT tool for use with EdgeX Ready – working with V2 profiles

## Jakarta Release

### General Scope Question – what is this release about?

- “Bug fix only”
- “LTS”
- Light on new features (or absent of any new features)
- Should we use this release to design out/experiment (but not implement for release) with new features for Kamakura?
  - Digital Twin
  - Metrics collection
  - Kubernetes support
  - Etc?

### Release Timeline

- We'll set formal target dates in the planning meeting.
- Generally, should we target typical late fall timeline or do we want to add more time? Impacts potential scope. (3+ months of development – with a patch release in the middle)

### Potential Scope Exploration (remember – for now its in or even possibly in or out)

*Based on exploration of Iceboxes, Roadmap lists, etc.*

#### Architecture Topics for Consideration

- Implement Device Service Filter ADR?
- Implement Service List ADR?
- Implement Registry ADR?
- Implement Metrics ADR?
- Implement UoM ADR?
- Solve System Management issues?
- Digital Twin

#### New Features

- General
  - Enable CORS (for API Gateway and service APIs in general)
- Core/Supporting
  - MaxEvent Size a config setting
  - Improve ability to add interval/interval actions statically
  - Send commands to group of devices based on label
  - Add NATS implementation for message bus
  - Add Websocket support for notifications
- Device Services

- Support automatic migration of devices between device services
- Add record and replay function (new device service)
- Allow for dynamic updates to device profiles
- Event Filtering in Device Services (per ADR)
- Implement Validation of ProtocolProperties
- Allow multiple evens with readings to be created from DS
- Enable resource command chaining
- Support regular expressions in assertions
- Overwrite for profiles / devices loaded from disk
- Always send CBOR for performance (test first??)
- Security
  - Decouple microservices from configuration (#2420)
  - Build a secret store unsealing daemon (#1944)
  - Build micro service communication security (service to service - #1950)
  - Deploy Consul in secure configuration (2453)
  - Enable Vault identity Secrets (#2456)
  - Add deployment best practices in security documentation (#60)
  - Enable signing of EdgeX images for Docker Hub (#2470)
- App Services
  - Fork the pipeline
  - Flogo integration (awaiting Flogo team)
  - CloudEvent as TargetType in Pipeline configuration
  - Provide example live camera watching Application Service

## Tech Dept/cleanup

- General
  - Upgrade to YAML v3 (vs v2)
  - Replace poor 3<sup>rd</sup> party libs based on paper study (not supported, not used, etc.)
    - Includes ZMQ, logfmt, goburrow for modbus etc.
- Core
  - Allow separate PublishHost and SubscribeHost in go-mod-messaging MQTT support
  - Fix SMA's default service list (also part of general system management and service list ADRs)
- Security
  - Address defect in secret store paths (#2465)
  - Configuration of root CA file is inconsistent across services (#2495)
  - Tag service location and secretstore config to not be in Consul (#2868)
  - Refactor the anonymous function inside secretstore-setup for init Vault (#3182)
- App Services
  - Integration tests for Store and Forward
  - SDK hangs when calling docker-compose stop
  - Unit testing error cases rely on string literals
- Snap
  - Redis in the snap triggers apparmor denials

- Modify install hook to drop usage of SNAP\_INSTANCE\_NAME

**Project Governance, Processes, Organization Topics to Discuss at the Planning Meeting (in or out for planning discussion)**

- PRC Evangelism, how to support, how to leverage, etc.
- Monthly Architects Meetings (continue or alter or stop)
- Outreach organization (working, not-working, room for improvement)
- Certification (after EdgeX Ready, what's next?)
  - EdgeX Ready V2?
- Adopter Series (continue, alert, stop)
- Vertical Liaison (more Agstacks?)