Attendees:

- MJ  Mike Johanson (Me, participant ID: 16)
- BC  Brad Corrion (Intel)
- RH  Rodney Hess
- BF  Brandon Forster
- BR  Bryan Rodriguez
- DR  Dave Rensberger
- EU  eno u
- IOTech
- LG  Lenny Goodell (Intel)
- MB  Malini Bhandaru
- ME  Michael Estrin
- SO  Steve Osselton

Topics for Today:

- Store & Forward Goals:
  - When connectivity is lost
  - Support Batch Mode and sending Data on a schedule Proposal
• Leverage existing reference implementations MongoDB and Redis
  ○ Probably best way to go to create its own connection and its own db collection
  ○ Can use same mongo instance or other - ensure isolated
• Add new parameter//option to Export functions (HTTPExport, MQTTSend) to persist on error
  ○ Persist on error would store event data to db on failed request
  ○ Should we consider a timeout for data persisted for it to be aged out
• Add new function - Batch(count int) - to hold messages until count is reached before outputting to next function
• Provide /endpoint for scheduler to call in order to retry previously failed requests
• Need to be clear with examples of how and when voluminous data versus occasional data can be persisted or dropped
• When processing is picked up again, its done at the export point, not the beginning of the pipeline
• Need identity of pipeline of that originated the data as well as where in the pipeline it was.
  ○ App Service Configurable - pipeline changes, what do you do with the data if the stage in the pipeline no longer exists
• Future consideration - Fork Pipeline based on conditions
• Example pipeline 1 (Valuable occasional data):
  ○ FilterByDeviceName()
  ○ TransformToJSON
  ○ Batch(50)
  ○ CompressWithGZIP
  ○ HTTPPost(persist=\texttt{true})
  ○ MarkAsPushed - not called until connectivity is restored
• Example pipeline 2 (voluminous telemetry data drop it if we fail to send it out):
  ○ FilterByDeviceName()
  ○ TransformToJSON
  ○ HTTPPost(persist=\texttt{false})

• Feature Requests - Brad Corrion

Topics from last time:
• Update from Cloud Export Meeting this morning
  ○ Mike to share module for extending App Functions SDK
  ○ Alex will start working on AWS Export
  ○ Cloud will port existing implementation so that it can extend the app functions SDK
○ Brad will share feature enhancements in the Application Working group meeting
○ CloudEvent should be added as an export formatter
  ■ Put it in holding along with the other cloud/north bound exports
  ■ Defer decisions to move to main edgexrepo until popular

● Feature Requests from Commerce Working Group
  ○

● App Service Configurable - Ready for TSC Approval?
  ○ Yes, go for TSC Approval Wed Aug 7th
  ○ Export to rules engine
  ○ BlackBox testing
  ○ Ci/CD pipeline needs to be in place

  ○ Vault integration is captures as separate issue
  ○ Still waiting for module to leverage vault

● MarkAsPushed - break it out from HTTP and MQTT
  ○ Currently baked in,
  ○ Will move this into its own transform to be called manually
  ○ **TOPIC FOR FUTURE:** What is the thing that determines that the item is removed from the gateway. How and when?
    ■ Maybe its just a delete? Avoid mutability

● BlackBox Testing
  ○ ZMQ through HTTP Export out of scope