Data Persistence Project Group (Inaugural) Meeting – 8/2/18

Attendees:

New Business

- Our charter (any objections or changes?):
    - Document EdgeX persistence requirements
    - Outline potential persistence stores and architectures to meet the requirements
    - Research the options
    - Make a recommendation to the Core WG on persistence architecture and reference implementation for future releases of EdgeX (for Delhi release)
    - Define a strategy around multiple database support
- Timeline: to make a recommendation to Core WG and then TSC on EdgeX reference implementation of data persistence by Delhi release
    - Outline required changes and level of effort in code base to support for Edinburgh planning session (Oct 22).
- What are our data persistence requirements?
    - <u>Must haves</u>
        - License of product – compliant with Apache 2
        - Platform support:
            - Intel
            - ARM 64 & 32
            - OS??
        - Small footprint
            - Size requirements?
        - Performant
            - How quantified? # of transactions/sec?
            - Speed of queries?
            - Support real time?
        - Durable across EdgeX shutdown (no in-memory db)
        - Run in a container (Docker/Snap/etc.)
        - Secure
            - Password protected
            - Supports data encryption (protect data at rest)
            - ???
        - Has Java, Go, C, C++ drivers/connectors
            - What others are probably needed
        - Community support and user-base size
            - How to quantify?
        - ??
    - <u>Nice to haves</u>
        - NoSQL (versus SQL)?
        - Synch capability?
        - Backup support?
        - Transactional (ACID) or Eventual Consistent (which CAP axis)?
        - Support multi-tenancy?

- ??
- Should we start collecting potential options and can someone lead that effort
  - Not a review or evaluation at this stage, just a list of potential databases
    - MongoDB
    - Mongo Mobile
    - Redis
    - Influx
    - Cassandra
    - Couchbase
    - SQLite
    - Etc.
- Next meeting time – Jim is out next week.
  - Does 9am CDT on Thursdays (before Core WG work for everyone)? Proposed alternate days/time
  - 30 minutes or 60 minutes?
  - Who else do we really need on the call?