

System Management WG Meeting: 8/21/18

Attendees: Tony (Canonical), Drasko (Mainflux), Salim (VMWare), ebrodsky(?), Ed (IoTech), pbutler(?), Jim, Akram (Dell), Emad (Intel), Nick (Thales), Drasko (Mainflux), Rodney (Beechwoods). Attendees that may have joined after the start of the meeting may not have been captured and listed.

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

Old Business

- Review of version 7 of design document.
 - Clean up remaining discussion in design document (inclusive of security part added by Akram)
 - See version 7 for updates at <https://wiki.edgexfoundry.org/display/FA/Phase+1%2C+System+Management+Delhi+Release?preview=/17498212/18907354/System%20Management%20Design-v7.odt>
 - Document considered accepted and adopted as design for Delhi release unless others provide additional commentary by next week.

New Business

- Akram to present current SMA implementation
- See <https://github.com/akramtexas/edgex-go/commits/sys-management-agent>
- Edinburgh and Fuji – what system management features might be next? Brainstorm session.
 - Add metrics
 - #Objects detected, inferences per second, time per inference (@ analytics level/AI)
 - Some metrics would be service specific (like above) some would be generic (ex: memory, CPU)
 - Need, potentially, to think about resolution of metric data (but don't want to impact service performance itself)
 - Data flow metrics: events per second, readings per second ideas
 - Add actuation based on metric change (control plane level rules engine/analytics)
 - Ex: Stop or restart a service if we see CPU rise to a certain level
 - Anomaly detection at system level
 - Storing metrics collected locally?
 - How to push data/metrics to other systems (REST v message)
 - How to allow for pull of data/metrics
 - Concern with too many database; or should it be a shared database in EdgeX
 - Could be supported of in-memory database vs disk? Allow down stream to store to disk as needed. (Use Redis for this for example).
 - Setting config (what is read only vs. writable property)
 - Callback (alerts on changes config/metrics)
 - Software update of micro services
 - Vs hardware/BIOS/etc.
 - How to do with various containers (Docker, Snap, Kubernetes, etc.)

- **Scope out at Edinburgh meeting – what is EdgeX management versus broader gateway management (what in Salim’s diagram is part of EdgeX)**
- SMA Translation layer (to talk LWM2M, OMADM, etc.)
 - How to push data/metrics to other systems (REST v message)
 - How to allow for pull of data/metrics
- Get metrics into time series database (like InfluxDB)
- Talk about broader “standard” for system management & system management APIs
 - Prescriptive guidance
 - Using EdgeX sys management as example implementation of
- Test bed potential with consortia/standard groups