<u>TL;DR</u>

Recommend that **Geneva release is a 1.2 release** -- we continue to support the V1 API and include a partial experimental V2 API (with no backwards-compatibility requirement) for some subset of the services. **The alternative is to significantly delay the Geneva release.**

API V2 principles are outlined at https://github.com/tsconn23/edgex-geneva-api/blob/master/adr/geneva-api-principles.md.

<u>Estimate</u>

616 man-days:

- 4 weeks to create scaffolding and abstractions (includes design, working group review, implementation, testing verification, and PR merge overhead)
- 119 man-weeks to add 132 V2 API endpoints:

  - Existing 126 endpoints in the core and support service OpenAPI documents
  - An estimated 6 new endpoints for dynamic device discovery
  - 3 days on average per endpoint implementation (includes local dev, test, and PR merge overhead)
  - 1.5 days on average per endpoint for related service-level acceptance test implementation (includes local dev, test, and PR merge overhead)

<u>Dell's Commitment</u>

- Based on potential internal commitments for my team in 2020, I anticipate committing the following Dell resources to this effort:

  - 20 man-days to undertake the initial 4 weeks of scaffolding and abstraction work (January)
  - 60 man-days (3 developers dedicated for 4 weeks) of V2 API implementation (February)
  - Backlog management and coordination of the overall effort

- I may be able to commit additional dedicated resources after February depending upon budget and Dell's internal roadmap

<u>Assumptions</u>

- To minimize risk and support the possibility of interim releases, the V1 API endpoints and blackbox test implementations will remain as-is; both will be removed when the V1 API is deprecated
- V2 API endpoints and related service-level acceptance tests will be additive

- A V2 API endpoint and its related service-level tests will be implemented at the same time by the same developer
- The estimate for service-level acceptance tests is a placeholder and will vary depending upon resolution of the ongoing discussion around TAF, Golang tests, and acceptance testing strategy
- Community members outside of Dell will dedicate resources to contribute to this effort
- Other non-V2-API-related core work will still need to be delivered for Geneva as planned

Recommendations

- **The community needs to quickly make several decisions before the V2 API work can proceed**:

  - Currently under discussion in the QA Working Group, what will our strategy be for service-level blackbox/acceptance testing?
  - What resources is the rest of the community willing to dedicate to this effort?
  - Will Geneva go out in April with a partial experimental V2 API or be delayed until a full V2 API can be implemented?
  - Should the new major Geneva features be implemented in the V1 API or the V2 API (the latter being experimental)?