AGL Connectivity EG Update

25 June 2020

Toyota Requirement Analysis

- Toyota requirements and analysis by Konsulko provided in SPEC-3283

- Link to spreadsheet

- Many requirements required UI change and little no binding change.

- High Priority Changes requiring more work were in phone book and call waiting areas

- Largest amount of work is for multi-phone use case (low priority)

Denso-Ten API

- API document provided
- No code will be provided
- Will require a significant amount of work to shim the API between the current binding and Bluez or a commercial stack
- Connectivity EG sees this as high cost with low benefit solution.
  - If implementation is provided by Denso-Ten or other member company than the cost benefit analysis could change considerably.

Konsulko Ideas

- Konsulko Proposal sent to Steering Committee earlier this year.
- General improvement/ refactoring
  - Rework of the Bluetooth bindings to talk to a new abstraction layer that *would simplify proprietary Bluetooth stack enablement*. The upstream AGL integration would still use BlueZ by default via the new abstraction layer, with the abstraction layer and BlueZ back end implementation being a standalone open-source project developed by Konsulko Group.
- Takes the lessons learned from AGL and other work Konsulko has done on open source Bluetooth to allow for integration of proprietary stacks as well as extension to allow for new use cases requested by Toyota and other members.
- Design multi-phone use cases into the new binding implementation
- Medium to high cost with high benefits to Toyota use cases

Konsulko Proposal

- Phone application improvements
- Improve demo Qt phone application UI now that HFP support is targeted for usability in Icefish. Suggested improvements:
  - Grey dialpad when HFP disconnected
  - Grey contacts, recents, and dialpad recents when PBAP not connected
  - Add phone number type icons to the contact screen and call logs screen
  - Replace non-matching material design icons with AGL icons
  - Allow select and dialing of any phone numbers for a contact (not just the first in the list)
  - Highlight selections in lists
  - Allow alternative sorting of contacts
  - Add a favorites tab and allow selecting contacts as favorites.
  - Improve contacts List by clicking to drop down details (condense the default view to one line)
- Medium cost with high impact on meeting Toyota use cases.

Other Ideas

- Can use this work to test out the ability of the new Window Manager/Compositor to meet the Toyota use cases especially if Toyota or other member were to provide new design for AGL phone app.

- Add IC connector to phone book and phone app giving AGL the ability to test Instrument Cluster display of phone book scrolling from IVI system.