What is SDL?
The Basics

Head Unit Contains SDL Core
(No Third Party App Code in Head Unit)

SDL Proxy in Application
Communicates with Head Unit
SDL allows driver's to keep their hands on the wheel and their eyes on the road by locking the screen of a mobile device and transferring controls to the vehicle interface (HMI).

Drivers perform the app commands that they already know by using dash mounted buttons, knobs, touch screens, steering wheel buttons…and of course, voice command
Compatible with All Trims

Competitor Solutions Exclude Millions of Vehicles Due to Large Display, Processing Power, and Memory Requirements
SmartDeviceLink (SDL)

QNX    Microsoft
Android    Linux
...or Others

iOS    Android
Any Future OS That Gains Scale

OS Agnostic
Template Driven HMI

No Third Party Code in Head Units

Apps Send Text and Images via Bluetooth

Apps Subscribe to Buttons & Voice Command
What is SDLC?
DIAMOND MEMBERS

TOYOTA

Ford

SUZUKI
PLATINUM MEMBERS

- Mazda
- Subaru
SILVER MEMBERS

Intelematics

DAIHATSU
Centralized Resources

SDL Core Implementation Guidelines
SDL Server Documentation
Unique AppID Generation
iOS & Android SDKs
Developer Support

SmartDeviceLink.com
Interactive Ecosystem

SDL Site Acts as Central Hub for All Activities

Members Can Create Branded Sites to Provide Support for Unique Components Such as
- Vehicle Data Access
- Policies Administration
- HMI
- App Approval Criteria
Policy Administration

SDL Connects to Apps
SDL Core Maintains Whitelist of Approved AppIDs and Associated Permissions
SDL Code in App Edits Permissions in Core Via AppID
SDL Communicates with SDL Server via device network connection
SDL Server Controls Permissions and Access Levels for each AppID

Individual OEM Maintained SDL Server Ensures Proper Accessibility and Permission Levels for Every Vehicle
SDLC Product highlights

• 5 Proxy Releases
• 2 Core Releases
• SHAID Release
• Production-ready Policy Server Release
• Manticore Release (emulator and UX)
• Developer Portal Enhancements
2017 HIGHLIGHTS

PROPOSALS SUBMITTED BY
4 DIFFERENT SDLC MEMBERS & PROJECT MAINTAINER

IMPLEMENTED PROPOSALS AS OF 9/1/17
CONTRIBUTED BY 5 SDLC MEMBERS AND PROJECT MAINTAINER

56 ACCEPTED PROPOSALS AS OF 9/1/17
What’s Next?
Send Location to Nav

Send POI or Route Data from App to Embedded Navigation
SDL Remote Control

Allow Control of Infotainment Functionality Such as Tuner, HVAC, ...and More by an Approved Application
Mobile Navigation App Projected on Display
Why SDL as Linking Technology?
**Beamed-In & Built-In**

- **Beamed In**: Scale/cost advantages when content is broadcast one to many.

- **Built-In/Embedded Modems**: Leveraged for highly secure, OEM proprietary functions such as vehicle wake up, vehicle controls, over-the-air updates, V2X, A/V functions, etc.
The Case for Brought-In

- Complement built-in and beamed-in products & services
- Leverages latest phone and wireless carrier technology
- Provides familiar/powerful UX, accessible outside of the vehicle
- Fast to market, low engineering effort and avoids TCU HW cost
- Killer interface for many use cases including music apps, integration to embedded navigation, video streaming, etc.
Third Party Solutions

Silicon Valley leaders have launched attractive/competitive offerings. Why establish an automotive alternative?
The Case for an Automotive Standard

- Maintain OEM brand DNA, consistent with automotive experience
- Enables direct acquisition of vehicle/customer data for analytics
- Enables the automotive industry to direct access to customers and associated monetization opportunities without paying a “toll”
- Enables automotive industry to control which apps have access to vehicle
- Enables a proprietary automotive standard/platform to offer products and services for which the automotive industry is the SME
- Offers customer’s product/service choice in a changing environment
Leveraging Android Auto and CarPlay vendor extensions, is like setting up your CVS store right behind a Rite Aid and requiring your customers to walk through the Rite Aid Store before entering CVS.

Why would we do that, and why would we be willing to pay a toll to do so?
Vehicle Data Administration

SDL Enables Each OEM to Build Custom Vehicle Data Practices

OEMs Decide What Data to Make Available and Who is Allowed Access
In-Vehicle Content Control

SDL places content governance in the hands of each member. Apps are approved or restricted by each individual OEM for their vehicles.

- **CarPlay Only Allows** Apple Maps, Siri
- **Android Auto Only Allows** Google Maps, Google Now
- **SDL Allows Enablement of** Any Mobile Nav or Voice Solutions

*Images showing CarPlay and Android Auto interfaces.*
OEMs Retain HMI Branding
Established App Ecosystem

20,000 Developers Engaged with SDL
Online, at Hackathons, and Conferences
Established App Ecosystem

Over 100 Apps Already Compatible
Automotive has Needed Scale

2015 Global Sales

Combined Vehicle Sales

88 Million

Apple iPhone

231 Million

Samsung S Series

320 Million
The Case for SmartDeviceLink & SDLC

• o/s, developer and product & service agnostic
• Proven linking architecture
• Proven Open Source strategy
• Largest Developer Network in the World
• SDLC automotive support/volume to compete
Here to stay – Come Join Us!!