

# Comparison of Car Connectivity Solutions

May 18, 2015

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Solutions & Services



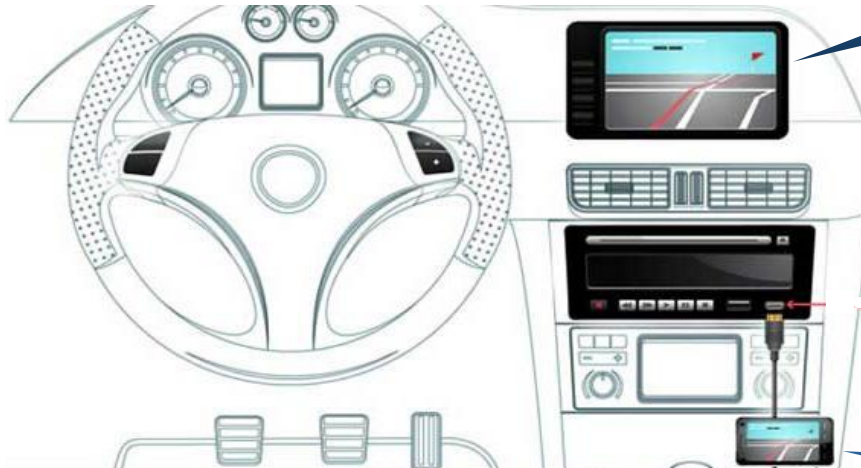
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# Car Connectivity Options



# Smartphone As In-Car Service Portal



[Projection Mode]  
Apps running on phone but  
projected on car

[Collaboration  
Mode]  
Apps running  
on both phone  
and car

[Native Mode]  
Apps running and showing on  
phone interacting with car

# Smartphone Connectivity



# Smartphone Connectivity Options

## CarPlay

- Projection mode
  - CarPlay on H/U
  - iOS app on phone
- Closed tech
  - Need Apple license
  - Apple watch

## Android Auto

- Projection mode
  - Android app
- Closed and open
  - Need Google license
  - SDK open
  - Android wear

## Other

- Projection mode
  - MirrorLink
  - SDL
  - HTTP
  - Miracast
- Various options
  - Consortium
  - Vendor
  - Open source

## Proprietary

- Interoperable mode
  - Telematics app
  - OEM-specific app
- Various options
  - Work with CarPlay and Android Auto
  - Create own protocol

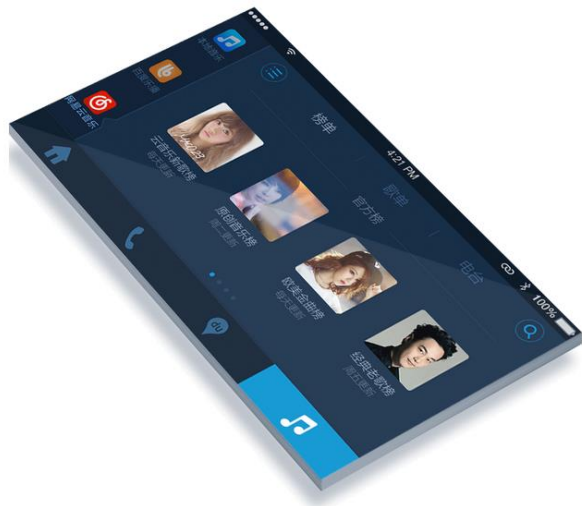


# Connectivity Technology Comparison

	Apple CarPlay	Google Android Auto	CCC MirrorLink	Other WebRuntime, etc	OEM Telematics
Medium	USB +WiFi (since iOS8.3 Beta)	USB (+WiFi?) + BT	USB + WiFi + BT	USB, WiFi, BT, MHL, HDMI	USB, WiFi, BT
Standard	H.264 / PCM	H.264 / PCM, AAC-LC	VNC / RTP	Various (HTTP/HTML)	Various (Existing or Proprietary)
Voice Recognition	Siri	Google Voice	By Smartphone	???	???
Since	2013	2014	2009	???	???
UI	Apple	Google	Flexible	Flexible	OEM
Car Data	GPS, Temp, Day/Night, Engine type	+ RPM, Current gear, Odometer, Door status, Head lights, etc	Flexible	Flexible	All
Compatibility	iPhone	Android Phone	Android Phone	Any	Any
Certification	Apple	Google	CCC	Other	OEM



# Baidu CarLife



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# Thank You

[www.auto.windriver.com](http://www.auto.windriver.com)

