

Where Smartphones meet the Dashboard



HONDA



VNC AUTOMOTIVE

RENESAS



Mercedes-Benz



PEUGEOT



SEAT

Tech
Mahindra

TechniSat
AUTOMOTIVE

Telechips

ALPINE
Mobile Media Solutions

Perferring the Art of Electronics
ALPS

WAISIN AW CO., LTD.



TOSHIBA
Leading Innovation >>>

YAZAKI



BOSCH

Clarion

Continental

DELPHI

htc
quietly brilliant

HUAWEI

LG Electronics

ALLION
Engineering Services

CAICT

DENSO

德赛西威
DESAY SV AUTOMOTIVE

ELVES
AUTOMOTIVE

FUJITSU

SAMSUNG

SONY

PSA

euofins

FIME

同耀实验室
Tongyao Laboratory

TTA



DRIVE - CERTIFIED

- Guaranteed to be available via IVI while driving.
- Tested against driver distraction guidelines.



BASE - CERTIFIED

- Guaranteed to be available via IVI while car is parked.
- Can be operated via touch screen and rotary knob.



NOT CERTIFIED

- MirrorLink-aware apps may be available via IVI while parked, but there is no guarantee.



Simple Guideline Objectives

- Apps work within different cars
- Apps do not distract the driver.
- No Business logic
- No Hidden rules

Guidelines are region specific

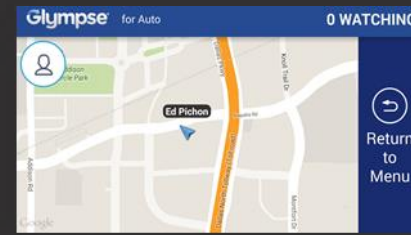
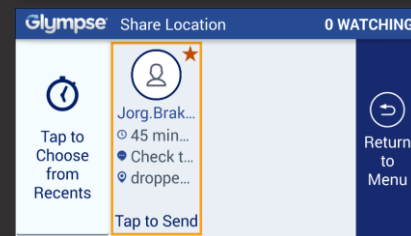
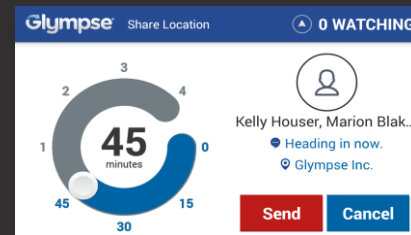
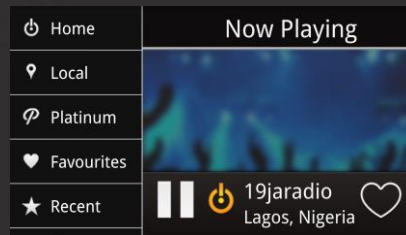
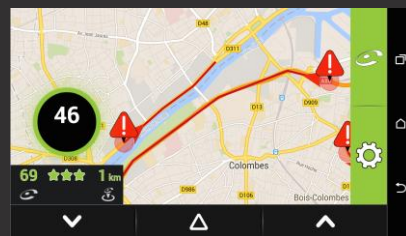
- EU, US, Japan, China
- Transparent Certification Program

Application Design Principles

- Developers are given an empty canvas for the UI to fill.
- Maintain brand identity.
- Templates are possible, but not required.

No Limitations

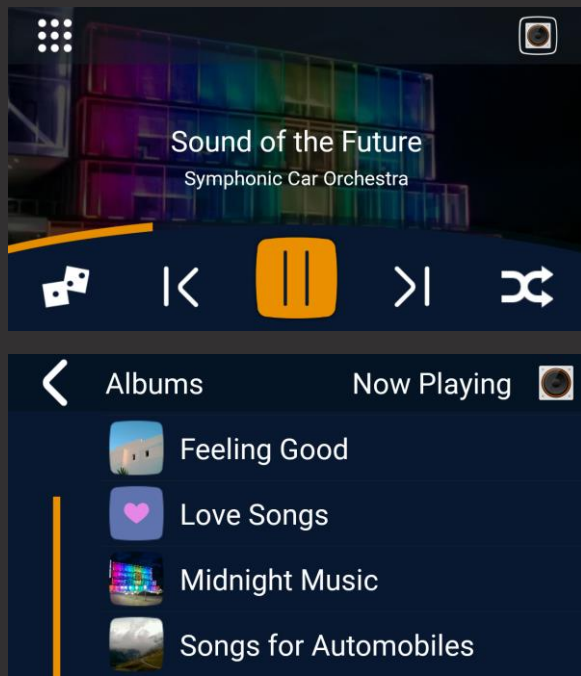
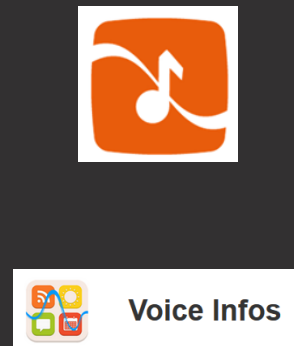
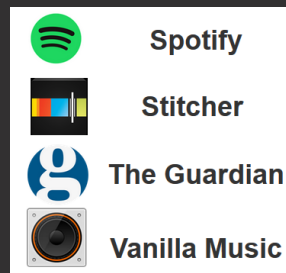
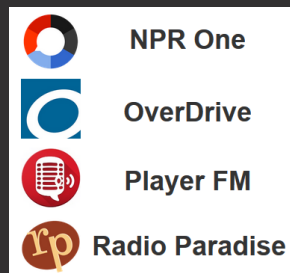
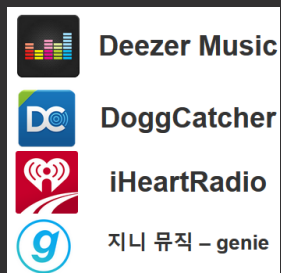
- Applications can be of any kind: Navigation, entertainment, social, messaging, ...

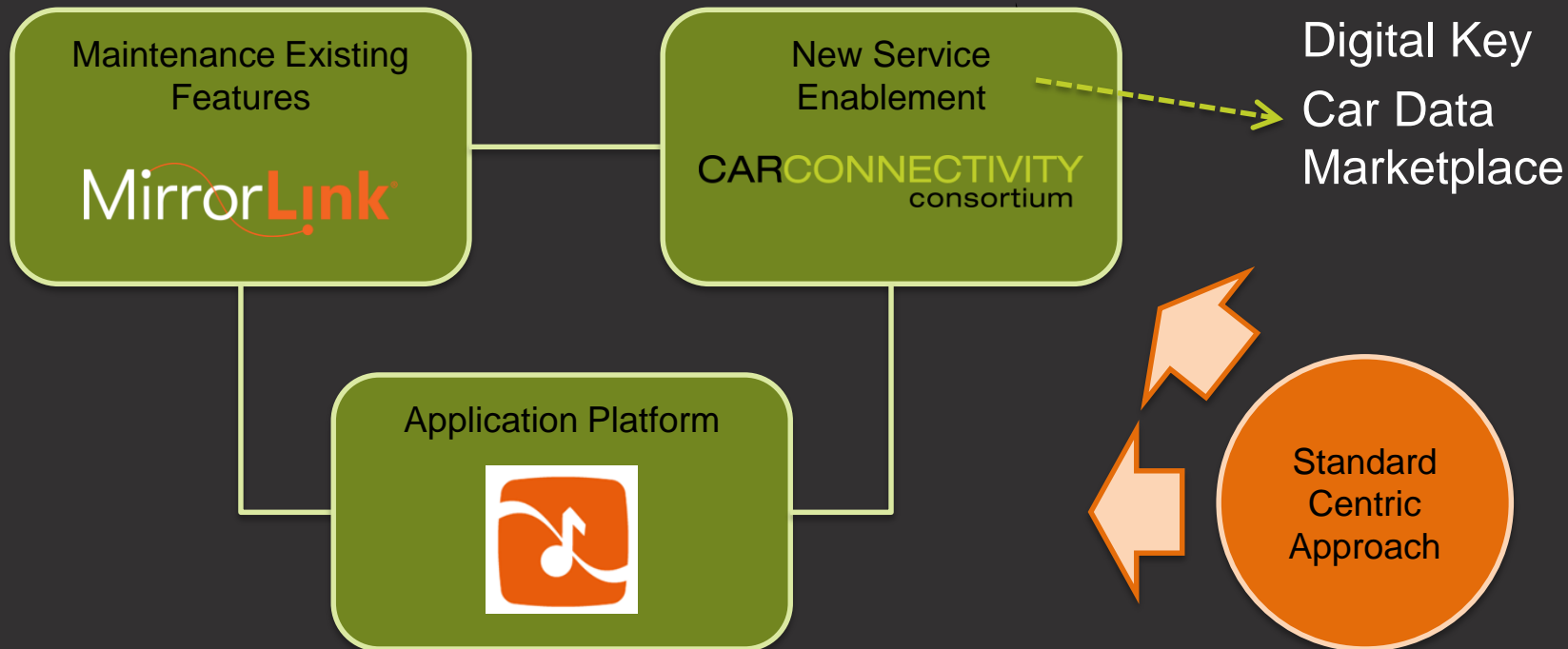


RockScout powered by MirrorLink

- CCC Drive-Certified Media Player
- Enables streaming of audio & native media streams without undergoing formal certification.
- Leverages Android's Media Browser Service

Supported Publisher





Harden and streamline existing MirrorLink experiences

Introduction of new Data Services

- Car Telematics Data
- Applications as a Data Source: Media & Navigation Meta Information

Better support for Applications – 2nd revision of the MirrorLink API

- Certification status of available applications
- Simpler voice interactions of applications
- And many more...

Introduced as MirrorLink 1.3

- Available now

Co-operation agreement with ETSI (European Telecommunications Standards Institute)



- ETSI will formally explore adopting MirrorLink 1.2 as an ETSI Technical Specification.
- Will be part of ITS Technical Committee, use PAS process

Why a formal Standard – Why ETSI?

- A standard will make it easier to work with government bodies and regulators.
- ETSI is known very well to many of our members
- ETSI has the right processes in place to allow the adoption of an industry specification, already adopted by millions of devices in the market place.

Digital Key

CCC's Newest Standardization Project

- Allows driver to keep key fob pocketed when unlocking, locking & starting vehicle
- Developed 1995 by Siemens, 1st introduced 1998 by Daimler
- On button press
 - Automatically unlock vehicle
 - Automatically disengage immobilizer & activate ignition
 - Automatically lock the vehicle (or walking away)
- Some vehicles automatically adjust settings based on the smart key used to unlock the car
 - User preferences, like seat positions, mirror settings, climate control settings, stereo presets
 - Prevent the vehicle from exceeding a maximum speed when a certain key is used



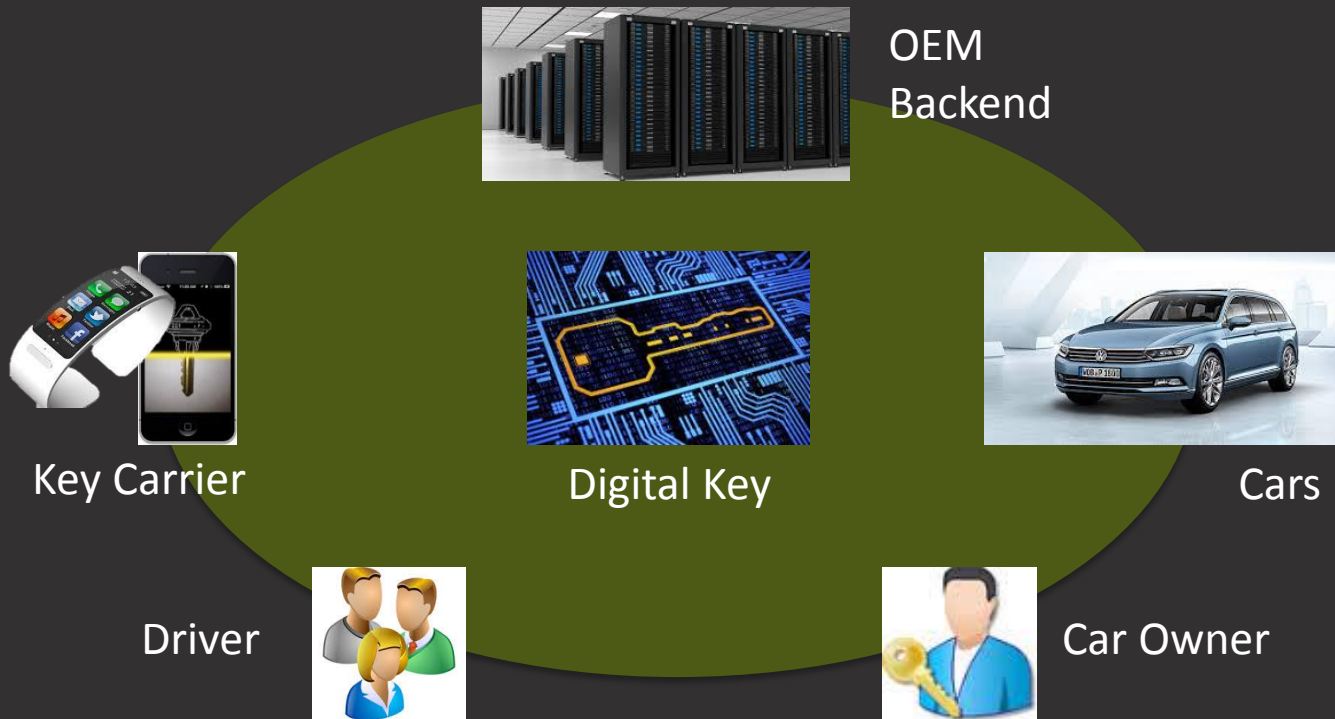


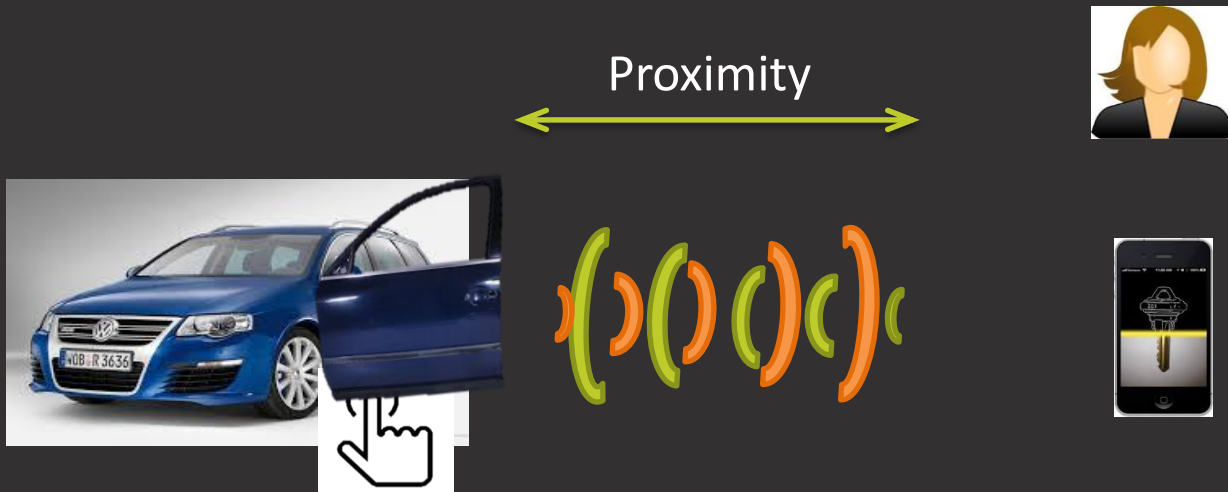
Smart Key



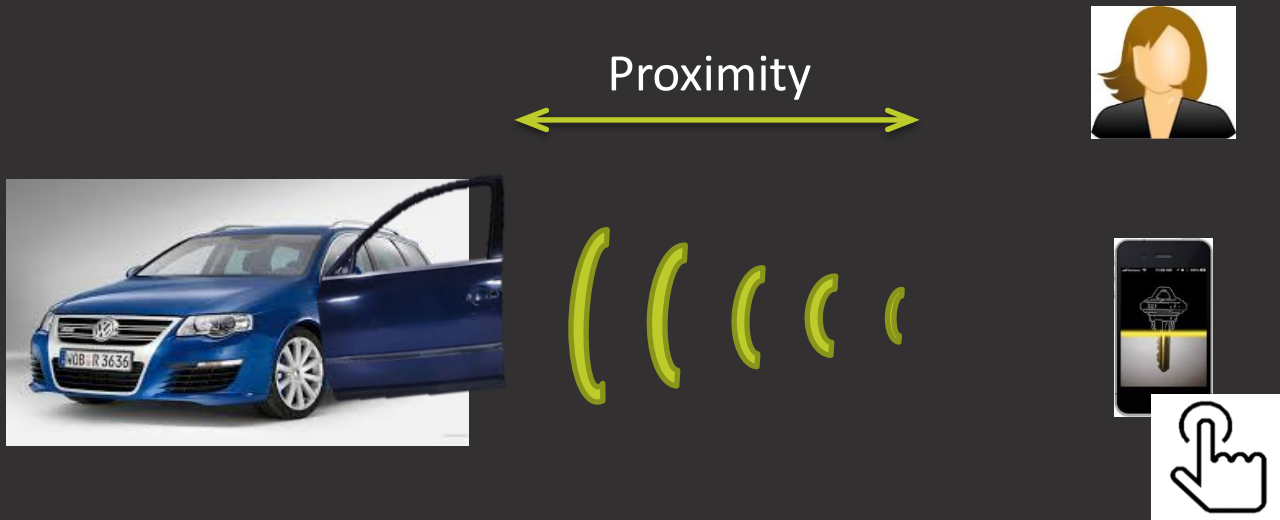
Digital Key
(aka Virtual Key)

Main Digital Key Roles





Touch sensor in Door + Close Proximity of Smartphone



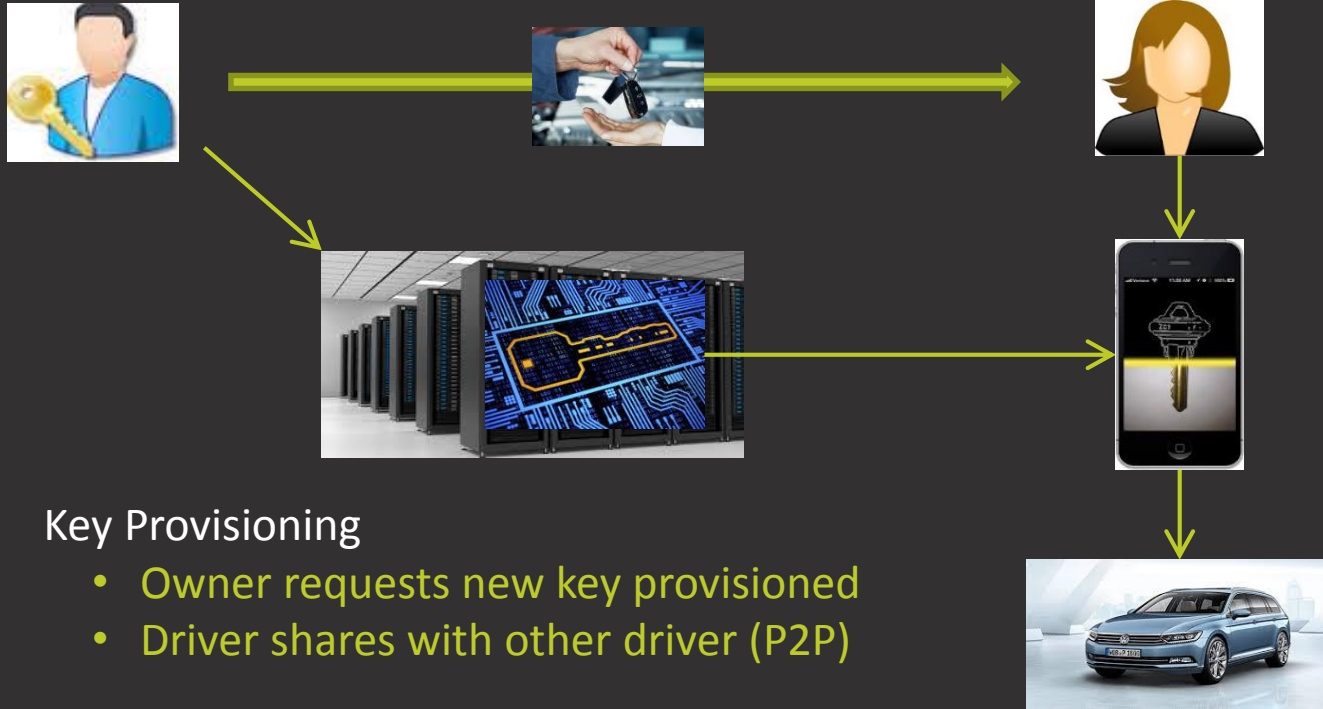
Touch App on Phone + Close Proximity of Smartphone



Smartphone makes an NFC touch with Car



- Thatcham Standard
 - An UK motor insurance research expert
 - Introduced a standard in 2005 for keyless entry, requiring the device to be inoperable at a distance of more than 10 cm from the vehicle.
- Typically achieved by measuring the strength of the Low-Frequency fields



Car Owner to Car is a many-to-many relationship

- A person may have more than one car from different vendors
- A car may be used from multiple persons, having different kind of phones / accessories

Business case expansion

- Car owner might be a Car Sharing or Rental Car company

Standardization is

- preventing fragmentation of interfaces and mechanisms,
- simplifying implementations, leading to more robustness,
- WHILE allowing differentiation for business players

Digital Key merges mobile and automotive world again, providing convenience for user, and opening new opportunities.

Example Use Cases

- Unlock vehicle
- Lock vehicle
- Start vehicle engine
- Digital Key management / provisioning / revocation

A standardized approach will drive the ecosystem to develop and deploy a common solution.

Q&A