



VNC[®] Automotive

Product Datasheet

VNC[®] Automotive enables a mobile device to be displayed and controlled directly from a vehicle head unit or infotainment system. Using high performance VNC technology, the display of the mobile device is reproduced in real time. Touch screen input controls the mobile device, while bezel keys, steering wheel controls and voice control can be mapped directly to smartphone buttons. The technology also enables the head unit to maintain a connection back to and from a remote desktop PC, enterprise system or cloud based applications.

The solution is packaged as a Software Development Kit (SDK) comprising a VNC Server component for mobile devices and a VNC Viewer component for head unit applications. By providing both components, RealVNC can guarantee interoperability through rigorous and extensive testing. The SDK allows developers to implement VNC functionality directly into their automotive systems and mobile applications, enhancing rather than replacing infotainment systems and allowing fully customized and branded mobile applications.

VNC Automotive delivers a reproduction of the mobile device screen in a platform independent format. This allows developers to utilize any rendering technology and to take full advantage of hardware assisted graphical processing. Being able to optimize to the hardware allows the highest possible frame rate and image quality.

VNC Automotive supports other connectivity protocols including: MirrorLink, based on the original VNC open standard RFB[®] 3.8 protocol, as well as RealVNC's more advanced version RFB 4.1; and iPod Out, for Apple iOS 4 and 5.

Benefits:

- Guaranteed interoperability between VNC Viewers and VNC Servers for the widest range of mobile devices
- Opportunity for corporate branding and ergonomic UI design
- Flexibility to extend functionality enabling product offerings to be differentiated
- Compatible with other connectivity protocols such as MirrorLink and iPod Out
- Most robust, mature and high performing solution available
- Revenue opportunity, where branded applications may be sold via the relevant application store
- Cloud based connectivity to a desktop and cloud based applications

Devices

Windows Mobile
Symbian
Blackberry
Android
Apple
Mobile Linux

Protocol Support

RealVNC (RFB 3&4)
MirrorLink (RFB 3.8, including UPnP, RTP and ML extensions)
iPod Out

Data Connection

USB
WiFi
Bluetooth
2G/3G/4G/LTE

Head Unit Operating System

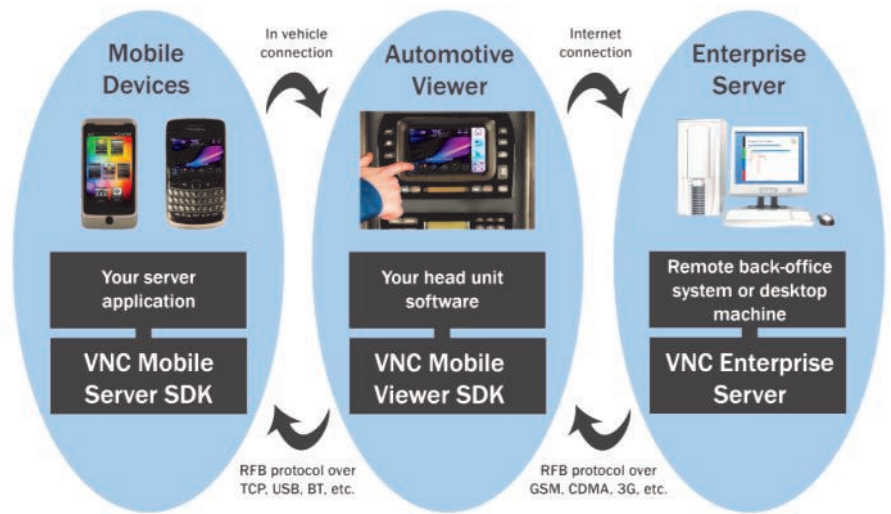
Linux
Windows: XP, Automotive, CE
QNX
Qt
Android
µITRON
T-Kernel

Target Architectures

ARM
x86
MIPS
Freescale
TI
Hitachi
STMicro

Desktops

Linux/Unix: Fedora, Debian, Ubuntu, HP-UX, Solaris, AIX
Windows: NT4, 2000, XP, Server, Vista, 7
Mac OS X



Security

- Closed System Security (VNC Viewers and VNC Servers can be paired)
- RA2 Encryption
- User Authentication
- VNC Viewer and VNC Server signature checking
- IP Filtering

Safety

- Speed-based application lock-out
- Full integration of application icons and launch into head unit HMI
- Applications can alter their interface to better fit the car environment (Android only)

Customization

- Easy integration with any head unit graphics toolkit and HMI
- Custom communications channels
- Custom messages can be exchanged with phone software to add whole new features

About VNC Automotive

VNC Automotive will automatically detect, access and control virtually any mobile device or desktop computer from a vehicle's touch-screen or fixed input devices such as steering wheel switches and head unit buttons and menus. Smartphone content such as navigation applications, traffic updates, music libraries and internet radio stations can be controlled from the vehicle infotainment system; while built-in mechanisms interlock speed and access to meet regulatory requirements and enhance safety.

About RealVNC

RealVNC's software is used by hundreds of millions of people around the world in both desktop and mobile platforms for remote access and control. The technology is being deployed in every sector of industry, commerce, government and education. Founded by the original inventors of VNC, RealVNC is the only organization able to offer a commercial license to embed VNC remote access capability in third-party products and offerings.

This datasheet is intended to be read in conjunction with the VNC Automotive Product Brochure.



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