

Enabling Secure Wireless Connectivity

The WLAN Suppliant provides device manufacturers with a robust software solution for enabling Wi-Fi network connectivity across a broad range of devices. Typically running in the application or middleware space of a device's operating system, the WLAN Suppliant handles the setup, management, and termination of Wi-Fi connections and network connectivity.

With the WLAN Suppliant, you are assured of the smoothest integration, fastest time to market and best possible Wi-Fi connectivity experience.

Time-proven Design

The WLAN Suppliant is based on the industry-leading suppliant from Devicescape – enabling Wi-Fi in millions of embedded devices worldwide since 2005. Devicescape has chosen dB Performance to be the premier integrator for Devicescape wireless security solutions.



Comprehensive Security

The WLAN Suppliant supports the entire suite of Wi-Fi security mechanisms including WEP, dynamic WEP with 802.1X, WPA/WPA2 Personal, WPA/WPA2 Enterprise, CCX and WPS. A full range of 802.1X Extensible Authentication Protocol (EAP) methods are provided to enable deployment in any type of enterprise security environment. It is easy for integrators to add or remove features as desired for a fully tailored solution.

Wi-Fi Certification Assurance

WPA, WPA2 and Extended EAP mode implementations have been employed as golden reference standards in the Wi-Fi Alliance's certification test bed. Device manufacturers can thus have confidence that their products will be interoperable and achieve Wi-Fi certification in a timely manner.

Cisco Compatible Extensions (CCX)

To ensure interoperability with the large installed base of Wi-Fi networking infrastructure equipment from Cisco Systems, the WLAN Suppliant supports Cisco Compatible Extensions for Cisco CCX OEM Licensees.

The WLAN Suppliant provides support for CCXv4 and CCXv5 specifications, in conjunction with suitable WLAN chipset drivers. Some examples of CCX features include enhanced EAP-FAST authentication, CCKM-AES and Cisco advanced roaming/voice features.

With CCX, device makers can take advantage of Cisco's innovations for enhanced security, mobility, quality of service, and network management.

Wi-Fi Protected Setup (WPS)

The WLAN Suppliant supports both the PIN and the convenient Pushbutton WPS methods to automatically configure wireless network settings. With WPS, the user can easily configure a Wi-Fi device for an existing wireless router or configure a new wireless router - all from the device.

Device Design Flexibility

The WLAN Suppliant is written in thread-safe ANSI C, and full source code licenses are available. This gives device developers complete flexibility in porting the WLAN Suppliant to the device operating system, processor, and wireless chipset of their choice.

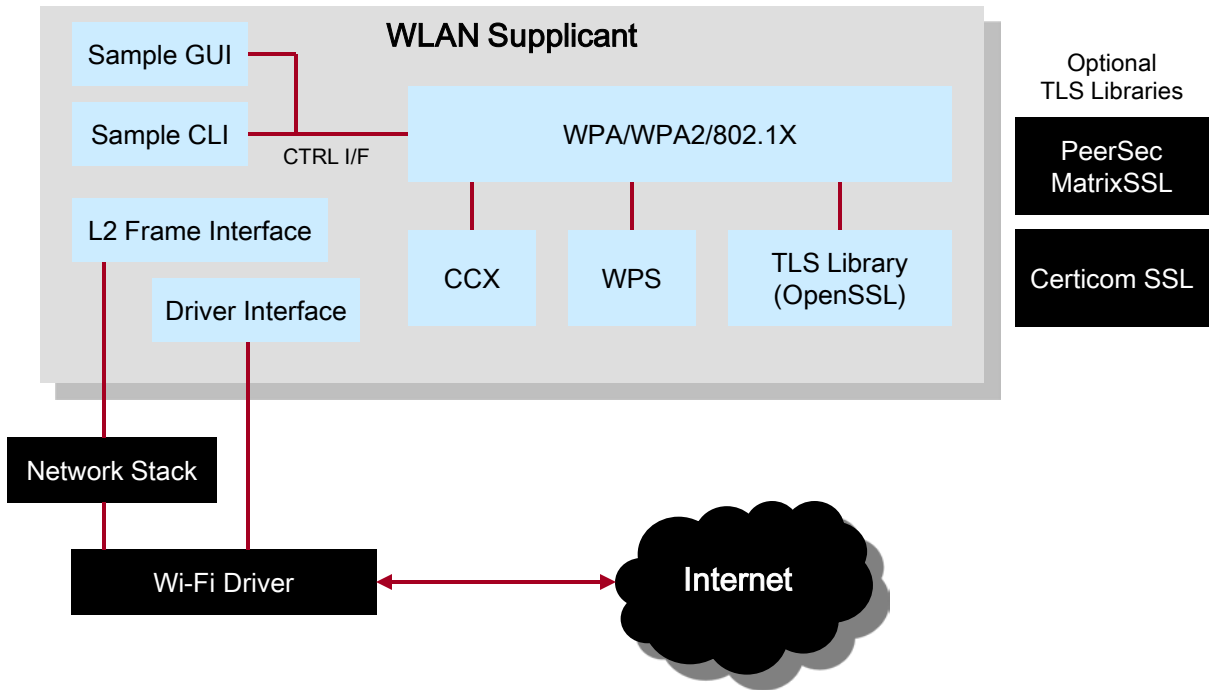
A sample CLI and sample GUI are available on most platforms for rapid prototyping and development. In addition, dB Performance can provide professional services to deliver a turnkey solution.

The WLAN Suppliant has been ported to Android, Windows XP/Vista/7, Windows CE, Windows Mobile, Linux, Palm OS, VxWorks, ITRON, ThreadX and Nucleus.

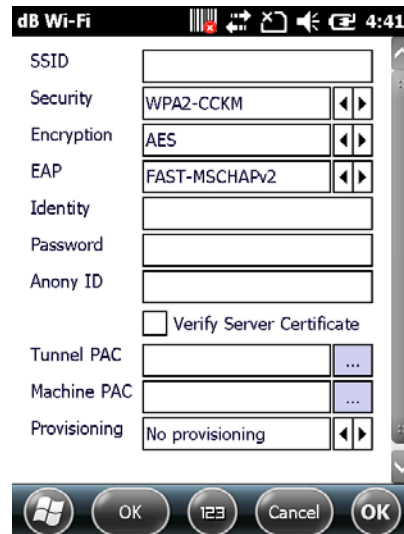
Blackberry 8820 powered by
WLAN Suppliant Technology



WLAN Supplicant Architecture



WLAN Supplicant Sample GUI Screenshots



WLAN Supplicant Specifications

IEEE / WI-FI WIRELESS STANDARDS

- IEEE 802.11 a/b/g/n compatible
- IEEE 802.11r Fast Roaming
- IEEE 802.11i with PMKSA caching and RSN pre-authentication
- IEEE 802.1X, wireless and wired
- WPA/WPA2
 - Personal and Enterprise
 - TKIP and AES (CCMP)
- WEP (64 / 128-bit)
- Dynamic WEP with 802.1X
- Wi-Fi Protected Setup (WPS)
 - Pushbutton and PIN modes
 - Enrollee & Registrar modes
- Smartcard support

CISCO COMPATIBLE EXTENSIONS (CCX)

- CCXv4 and CCXv5
- Support for Funk and Meetinghouse OIDs
- CCKM-AES support
- Pre-integrated with Qualcomm AR600x and TI 127x chipsets

PRE-INTEGRATED OPERATING SYSTEMS

- Linux 2.6
- Windows CE 5.0/6.0
- Windows Mobile 5.0/6.x
- Windows Embedded Compact 7
- Windows XP/Vista/7

USER INTERFACES

- Sample GUI for Windows and Linux platforms
- Sample CLI

EAP METHODS

- EAP-TLS
- EAP-PEAPv0/v1 with:
 - EAP-MSCHAPv2
 - EAP-TLS
 - EAP-GTC
 - EAP-OTP
 - EAP-MD5-Challenge
- EAP-TTLS with:
 - EAP-MD5-Challenge
 - EAP-GTC
 - EAP-OTP
 - EAP-MSCHAPv2
 - EAP-TLS
 - MSCHAPv2
 - MSCHAP
 - PAP
 - CHAP
- EAP-WSC
- EAP-LEAP
- EAP-FAST
- EAP-SIM
- EAP-AKA
- EAP-PSK
- EAP-PAX
- EAP-SAKE
- EAP-IKEv2
- EAP-GPSK
- EAP-MD5-Challenge (wired)
- EAP-MSCHAPv2 (wired)
- EAP-GTC (wired)
- EAP-OTP (wired)
- EAP-TNC (wired)

RADIUS SERVER VALIDATION

- Cisco ACS Server 4.x
- Cisco/Meetinghouse Aegis 1.1.6
- Juniper/Funk SBR Server 5.0.3
- Funk Odyssey Server 2.01
- Microsoft IAS Server 2003

DEVELOPMENT FEATURES

- Extensive debug support
 - Event logging
 - Multiple log levels
- EAP/RSN testing tool (Linux)
- Power management
- Control Interface

SUPPORTED TLS LIBRARIES

- OpenSSL (included)
- Certicom SSL
- PeerSec MatrixSSL

VALIDATED WI-FI CHIPSETS

- Atheros AR600x
- Broadcom BCM432x
- Intel 2915 and 3945
- Marvell 868x
- TI 125x and 127x
- Easily ported to other Wi-Fi chipsets

PORTABILITY

- Portable to nearly any operating system with a network stack
- Portable to any hardware environment

MEMORY FOOTPRINT

- 150 KB flash for base supplicant configuration
- Add approximately 200 KB flash for tunneled EAP modes: EAP-TLS, EAP-TTLS, PEAP and EAP-FAST
- Add 80 KB flash for WPS
- Add 90 KB flash for CCX
- 100 KB RAM during operation

DOCUMENTATION

- Release Notes
- Developer Guide
- API Reference Manual

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