



REDBOX PLATFORM WIRELESS NETWORKING

COMPLETE ENTERPRISE WIFI... WITHOUT ENTERPRISE COSTS

The Reliant Redbox Platform provides a complete multi-location, enterprise-grade wireless solution at a price point that is a fraction of complex commercial alternatives. Our solution provides centralized management, monitoring and security; readily scales to many thousands of locations; and offers significant configuration variation at the store level.

OPEN ARCHITECTURE AND OPEN SOURCE

Redbox Platform takes an open-architecture, open-source approach to wireless networking. We begin with the leading base wireless operating system, OpenWRT and DD-WRT, and apply it to a wide range of WiFi hardware providers, including EnGenius, D-Link, Alpha Network, ASUS, Ubiquiti, Sitecom and many others.

The core of almost all commercial products from vendors such as Cisco, Aruba and Motorola use the same type of embedded Linux kernel. Most, if not all, use common chipsets from suppliers such as Atheros, Realtek and Broadcom.

Reliant's is a need-based solution that gives our customers the freedom to choose the specific features and functionality they need from a broad array. They are never locked into a single vendor's proprietary, closed family of hardware solutions.

BROAD RANGE OF FEATURES

From a software perspective, the Reliant stack provides broad support for wireless network features, including 802.11 A/B/G/N, along with security models that include WPA and WPA2. Additionally Redbox Platform supports multiple SSIDs and BSSIDs, routed or bridge APs, full VLAN support, integrated DHCP, DNS, proxy, MAC filtering, wireless mesh, radio power control, guest WiFi, client isolation and many others.

WIRELESS SECURITY

Extensive wireless security is the foundation of the Redbox Platform solution. In addition to the security access models at the AP, including WPA and WPA2, we offer enterprise authentication to centralized RADIUS and LDAP. Extensive, dynamic firewalling at both the wireless and LAN level are available and feature source, destination, port, and both IP and MAC address filtering. Additionally, either at the AP or via dedicated wireless sensors, Redbox offers wireless intrusion detection (RWIDS) that provides features such as rogue access point detection and attack signature recognition. RWIDS can operate from an inexpensive sensor attached to a Redbox, or via multiple purposed APs, for complete coverage in large spaces.

COMPLETE, CENTRALIZED MANAGEMENT AND MONITORING

At the core of the Redbox Platform solution is a private, cloud-based management framework that provides for end-to-end configuration control of the entire solution stack. This includes not just wireless access points in an unlimited number of locations and quantities, but the security components, device inventory and setup, firewall rules, IP address and routing, operating systems, and hosted applications, all integrated with one another. This integration enables the entire solution to be managed from a single location. For example, the addition of a Redbox location can auto-generate the AP configuration, the permissions and access controls for mobile devices, auto device white listing and the setup of any hosted applications in a single action. Device monitoring and alerting is similarly centralized with automatic correlation and reporting.

With Reliant's solution, device monitoring and reporting is integrated with both wireless AP monitoring and application monitoring in a single composite solution. This dramatically simplifies the secure operations and support of critical wireless environments.





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STANDARDS AND ADDITIONAL TECHNICAL DETAILS

AP Hardware	Support for a wide variety of access point hardware including both indoor and outdoor APs, with multiple antenna options, radio types, power over Ethernet and form-factors.
Mode	APs can be configured in bridge, routed or client mode.
SSID/BSSID	Multiple SSIDs and BSSIDs can be configured, up to 32. SSIDs can be hidden or broadcast. Support for 802.1Q packet tagging, mapped to either wireless or wireless VLANs.
Security Mode	Complete WPA and WPA2 support, along with legacy WEP. WPA/WPA2 can be setup for Personal (PSK) or Enterprise. Enterprise WPA/WPA2 support RADIUS and LDAP centralized authentication. Cipher support includes both CCMP and TKIP.
Firewall	Robust stateful, logging firewall, applicable at both wireless and wired interfaces, including source, designation, MAC, IP and port basis.
Guest WiFi	Redbox Platform supports a robust guest WiFi/Internet access solution that includes presentation of an access page/AUP, including configurable password request, form-based user info request, Internet access controls that include site whitelist, blacklist or content/category based filtering. Time limits and time frames can be configured on access/use.
QOS	Packet prioritization based on flow set at the physical or virtual interface level. Flows can be set based on bandwidth percentages, bandwidth limits, guaranteed (minimum) bandwidth and priority. Queues can be managed based on a range random early detection, stochastic fair queuing and token bucket filter. Packet flows can be set up based on TCP and UDP port, transport type, IP address or MAC address.
VPN	SSL VPN using widely accepted OpenVPN solution.
Routing Protocols	RIP V1, RIP V2, OSPFv2, and BGPv4
NAT/PAT	Full support for both source and destination NAT and PAT.
DHCP	Full support for DHCP client or server operating on any physical or virtual interface. Support for RFC2136 for dynamic DNS.
Network Services	NTP (client and/or server), LDAP (client and/or server), syslog, syslog-ng, bootp (server), PXE (server), TFTP server, SCP (client or server)
Packet Capture	Redbox is capable of initiating packet capture and analysis at the wireless or wired network level.
Wireless IDS	Robust wireless IDS capabilities with full centralized alert processing and analysis. This includes new AP and/or client detection, suspicious client, AP spoof aka BSSTimestamp alert, netstumbler probe, deauth flood, broadcast disassociation, long SSID alerts and others.
Monitoring	Detailed monitoring via local agents deployed on wireless clients, access points or Redbox. SNMP-based monitoring of Redbox or deployed access points.

