

Overview

HiveAP 20 ag

The HiveAP Cooperative Control Access Point (CC-AP) combines an Enterprise-class access point with cooperative control technology to provide the benefits of a controller-based wireless LAN solution, without requiring a controller or an overlay network. HiveAPs are organized into groups, or "hives", enabling functions like fast layer 2/layer 3 roaming, coordinated RF management, security, QoS and mesh networking.

HiveManager

Network Management System Appliance

Aerohive Networks HiveManager Network Management System provides a single centralized management instance for the entire wireless network. While a hive of CC-APs is able to operate without the HiveManager, the HiveManager simplifies the provisioning for global policy management and centralized configuration and monitoring. The HiveManager lowers operating costs by speeding deployment, configuration and monitoring of the wireless network.



Aerohive Networks has introduced an innovative new class of wireless infrastructure equipment called a Cooperative Control Access Point (CC-AP). CC-AP combines an Enterprise-class access point with a suite of cooperative control protocols and functions to provide all of the benefits of a controller-based WLAN solution, but without requiring a controller or an overlay network. Aerohive Networks implementation of a CC-AP is called a HiveAP. This cooperative control functionality enables multiple HiveAPs to be organized into groups, called Hives, that share control information between HiveAPs to enable functions like fast layer 2/layer 3 roaming, coordinated RF management, security, QoS and mesh networking. This capability enables a next generation WLAN architecture, called a cooperative control WLAN Architecture, that provides all of the benefits of a controller-based architecture, but is easier to deploy and expand, lower cost, more reliable, more scalable, more ubiquitously deployable, higher performing and more suitable for Voice over WLAN than today's controller-based architectures.

A Hive of CC-APs is able to operate independently, however to provide for global policy management and centralized configuration and monitoring of many HiveAPs, the Aerohive Networks HiveManager Network Management System Appliance provides a centralized management instance for the entire wireless network. The HiveManager lowers operating costs by speeding deployment, configuration and monitoring of the wireless network.

HiveAP 20 ag Features in HiveOS 2.1

Hardware design for flexible deployment

- Dual radio provides concurrent 802.11a and 802.11b/g
- Flexible antenna configuration allows installer to choose fixed omni-directional diversity antennas or external antenna options
- Rugged chassis for office, plenum, warehouse, retail or industrial applications
- Supports PoE or standard power adapter

Cooperative Control

- Cooperative fast layer 2 and layer 3 roaming
- Cooperative RF control
- Aerohive Mobility Routing Protocol (AMRP) for mesh routing
- Tunnel load balancing for layer 3 roaming

Security

- Wireless privacy and authentication 802.11i, WPA, WPA2, WEP, 802.1X, PSK
- Granular user profile-based management defines SSIDs, VLANs, QoS and security policy for each user that enters the network
- Encryption AES, TKIP or RC4 (WEP only)
- Time-of-day and day-of-week-based access control and SSID enablement
- Up to 8 SSIDs for network segmentation (four per radio)
- On-board stateful-inspection firewall policy enforcement with session state sync with neighbors
- Destination-based MAC firewall support
- Tunneled guest networks

Authentication

- 802.1x authentication for WEP, WPA, and WPA2
- RADIUS support with PEAP, EAP-TLS, TTLS
- LDAP authentication to directory servers
- Authentication to Microsoft® Active Directory™ with caching
- Multiple RADIUS server support (per AP, per SSID)
- Built-in RADIUS server
- MAC based RADIUS authentication

Captive Web Portal

- Customizable captive web portal on HiveAPs for guest access
- RADIUS support for captive web portal

QoS for Voice, Video and Data at the Radio

- Powerful QoS features usually only found on high end routers
- User profile based queuing, scheduling and policing
- Per VLAN, per user profile, per service, per MAC address QoS assignment
- Full queuing support with 8 queues – strict and weighted round robin queuing mechanisms
- Per VLAN, per user profile, per user, per service rate limiting
- Marking and policing – WMM (802.11e) for wireless, 802.1p and/or diffserv
- WMM Wi-Fi Alliance® certified
- WMM power save (U-APSD)
- Support for Spectralink SVP Protocol

Anti-theft

- Designed to work with Kensington-style locks
- Software anti-theft via protected bootstrap

Wireless IDS

- In-network rouge AP detection
- Rogue client detection including ad-hoc mode clients
- Wireless compliance checking
- Sophisticated layer 2 and 3 DoS protection with a wide range of L2 and L3 attack signatures
- Port scan, IP spoofing and IP address sweep protection provides added security, particularly for quarantine and guest networks
- Wide array of security actions including logging, blocking, disassociation and banning to enable the network to automatically respond to threats

Cooperative RF Management

- Auto channel selection
- Station (client) load balancing
- Cooperative transmit power level control

Management

- Central management
 - Management via HiveManager
- Device Configuration
 - CLI via telnet, SSHv2, or console
- Monitoring
 - SNMP v1, v2c and syslog

Mesh

- Flexible radio configuration allows for either interface to be configured as a mesh
- Scalable peer-based mesh protocol link
- Mesh traffic encrypted with AES
- L2 routing rather than spanning tree used for greater performance and less overhead
- Self-healing enabled by dynamic path selection

High Availability

- Full client session synchronization across HiveAPs
- Stateful failover of any HiveAP even in the event of a wire failure
- AAA caching of credentials for remote office survivability
- Mesh failover in the event of wire or switch failure
- Dynamic mesh failover automatically changes access radio to backhaul radio in the event of a wire or switch failure



HiveManager 2.1 Features

Easy Administration

- Appliance-based management platform can be installed into the network in minutes
- Two HiveManager appliance options scaling up to 500 or 5000 APs
- Five concurrent administrators can simultaneously be connected to the appliance via a remote Java GUI
- Multi-platform Java client application runs on Windows XP, 2000, Linux and Macintosh OS X

Simple Central Management

- Single central management instance for up to several thousand HiveAPs
- User group policies can be applied network wide or granularly to individual HiveAPs
- Powerful grouping feature enables updates to the entire groups of HiveAPs with a few clicks
- One button centralized firmware upgrades
- Network map enables easy visualization of network status

Zero Config Installation HiveAP Deployment

- Auto CC-AP detection via CAPWAP on the same subnet, DNS or DHCP for multi-subnet deployments
- Auto provision or auto quarantine new CC-APs

Granular Control

- Detailed user based policy for QoS and security

Monitoring and Alarm Management

- Real-time monitoring of alarms and events from the CC-APs

Hardware Options

- Redundant hard drive and power supply options

Warranty

Every Aerohive Networks, Inc. product is bundled with a warranty that provides 1 year of hardware replacement (takes up to 10 days), 2 weeks of email tech support, and 3 months of software support. This can be augmented with the Aerohive support offering.

Paid Support

The Aerohive support offering provides what you would expect to keep your wireless network up and running. The standard support offering, purchased separately, includes next day advanced replacement, 24x7 technical support, Web and Email support access, and software updates. For complete support terms go to www.aerohive.com/support.

Technical Support

The Aerohive support contract provides unlimited access to the Aerohive support team by phone, pager or online 24x7x365.

Software Updates

The Aerohive's support contract provides software upgrades and updates to HiveOS and the HiveManager.

Next Business Day Advanced Replacement

If there is a hardware failure of a device covered by a support contract, a new unit will be sent overnight to all locations within the US and Canada assuming the issue is identified by 3:00 PM PST on Monday through Friday. Within the European Union, the issue must be identified by 3 PM CET. The replacement product will be received the next day unless the unit is shipped over the weekend in which case it will be delivered on Tuesday, Aerohive's holidays excepted. The customer has 30 days to return the replaced unit in a pre-paid box.

HiveManager Physical Properties

Device Specifications

- Form factor: 1U rack-mountable device
- Chassis dimensions: 16 13/16" W x 1 3/4" H x 15 13/16" D (42.7 cm W x 4.4 cm H x 40.2 cm D)
- Weight: 13.75 lb. (6.24 kg)
- Serial port: male DB-9 RS-232 port (bits per second: 9600, data bits: 8, parity: none, stop bits: 1, flow control: none)
- USB port: standard Type A USB 2.0 port
- Ethernet ports: MGT and LAN – autosensing 10/100/1000Base-T

Power Specifications

- ATX (Advanced Technology Extended) autoswitching power supply with PFC (power factor corrector):
 - Input: 100 – 240 VAC
 - Output: 250 watts
- Power supply cord: standard three conductor SVT 18AWG cord with an NEMA5-15P three-prong male plug and three-pin socket

Environmental Specifications

- Operating temperature: 32 to 140°F (0 to 40°C)
- Storage temperature: -4 to 176°F (-20 to 80°C)
- Relative humidity: 10% – 90% (noncondensing)

HiveManager High-Capacity Physical Properties

Device Specifications

- Form factor: 2U rack-mountable device
- Chassis dimensions: 16 13/16" W x 3 1/2" H x 17" D (42.7 cm W x 8.9 cm H x 53.3 cm D)
- Weight: 34 lb. (15.42 kg) without rails
- Serial port: male DB-9 RS-232 port (bits per second: 9600, data bits: 8, parity: none, stop bits: 1, flow control: none)
- USB port: standard Type A USB 2.0 port
- Ethernet ports: MGT and LAN – autosensing 10/100/1000Base-T

Power Specifications

- Redundant ATX (Advanced Technology Extended) autoswitching power supply with PFC (power factor corrector):
 - Input: 100 – 240 VAC
 - Output: 700 watts
- Power supply cord: standard three conductor SVT 18AWG cord with an NEMA5-15P three-prong male plug and three-pin socket

Environmental Specifications

- Operating temperature: 32 to 140°F (0 to 40°C)
- Storage temperature: -4 to 176°F (-20 to 80°C)
- Relative humidity: 10% – 90% (noncondensing)

HiveAP Physical Properties

Device Specifications

- Chassis dimensions: 8 1/4" W x 1" H x 4 15/16" D (21 cm W x 2.5 cm H x 12.5 cm D)
- Weight: 1.5 lb. (0.68 kg)
- Antennas: Two fixed dual-band 802.11a/b/g antennas, and two RP-SMA connectors for detachable single-band antennas.
- Serial port: male DB-9 (bits per second: 9600, data bits: 8, parity: none, stop bits: 1, flow control: none)
- Ethernet port: autosensing 10/100Base-T with IEEE 802.3af-compliant PoE (Power over Ethernet)

Power Specifications

- AC/DC power adapter:
 - Input: 100 – 240 VAC
 - Output: 48V/0.38A
- PoE nominal input voltages: 48 V, 0.35A
- RJ-45 power input pins: Wires 4, 5, 7, 8 or 1, 2, 3, 6

Environmental Specifications

- Operating temperature: 32 to 122°F (0 to 50°C)
- Storage temperature: -4 to 158°F (-20 to 70°C)
- Relative Humidity: Maximum 95%

SKU	Description		
HiveAPs			
AH-AP-020-AG-FCC	HiveAP 20 ag, 2 radios, mounting bracket, FCC regulatory domain, without power supply		
AH-AP-020-AG-FCC-P	HiveAP 20 ag, 2 radios, mounting bracket, FCC regulatory domain, with world power supply and US power cable		
AH-AP-020-AG-W	HiveAP 20 ag, 2 radios, mounting bracket, configurable regulatory domain, without power supply		
AP Accessories			
AH-ACC-Serial-DB9	DB9 serial console cable for HiveAP 20 and HiveAP 21		
AH-ACC-PWR-48V	Power supply for HiveAP 20 and HiveAP 21		
AH-ACC-PWR-CBL-US	US power cord for HiveAP 20, HiveAP 21, HiveManager, and High Capacity HiveManager		
AH-ACC-PWR-CBL-UK	UK power cord for HiveAP 20, HiveAP 21, HiveManager, and High Capacity HiveManager		
AH-ACC-PWR-CBL-EU	EU power cord for HiveAP 20, HiveAP 21, HiveManager, and High Capacity HiveManager		
HiveManager			
AH-HM-NR-1U	HiveManager (1U) NMS Appliance with included 25 AP license. Non-redundant maximum of 500 APs		
AH-HM-R-2U	High Capacity HiveManager (2U) NMS Appliance with included 25 AP license. HA capable. Redundant HDD, PS		
HiveManager Accessories			
AH-ACC-HDD-HM	Spare HDD for High Capacity HiveManager		
AH-ACC-PWR-HM	Spare power supply for High Capacity HiveManager		
AH-ACC-RAIL-HM	Rack mounting rails for High Capacity HiveManager		
HiveManager Licenses			
AH-HM-UG-26-50	HiveManager License Upgrade 26-50 APs	AH-HM-UG-501-1000	HiveManager License Upgrade 501-1000 APs
AH-HM-UG-51-100	HiveManager License Upgrade 51-100 APs	AH-HM-UG-1001-2000	HiveManager License Upgrade 1001-2000 APs
AH-HM-UG-101-200	HiveManager License Upgrade 101-200 APs	AH-HM-UG-2001-5000	HiveManager License Upgrade 2001-5000 APs
AH-HM-UG-201-500	HiveManager License Upgrade 201-500 APs		



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