

Aerohive HiveOS/HiveManager 5.1r1 Features and Benefits

Feature	Description	Benefit
Bonjour Gateway	Aerohive devices make network services advertised by Apple's Bonjour protocol (such as AirPrint, AirPlay, file sharing, collaboration apps, etc.) visible across different subnet/VLAN boundaries.	Allows network administrators to easily and selectively advertise Bonjour services across subnet/VLAN boundaries without the need of changes to network topology or configuration. Normally, Bonjour is restricted to a single broadcast domain, so this feature allows administrators to segment networks for scalability and performance while retaining the plug-and-play ease of use of zero-configuration services for client devices.
MDM Enrollment	Aerohive devices deployed in an Apple environment can assist a JAMF Software server (JSS) in the management of smart mobile devices. If the Aerohive device detects that a client is running iOS, the Aerohive device will query the JSS server about the MDM profile enrollment status of the client. If the client has not yet been installed or was uninstalled for any reason, the Aerohive device redirects the client to the JSS for enrollment before permitting access to the rest of the network.	Allows administrators to support self-enrollment of iOS devices in the JAMF MDM profile, and ensures that devices get enrolled and stay enrolled and in compliance with network access policies in order to continue accessing network resources.

HiveManager Reporting

There is a new Network Summary Report in HiveManager that summarizes network usage for a group of devices (building, floor, school, or campus) on a daily, weekly and monthly basis, and with the following views:

- Data Usage
- Clients
- SSID
- SLA Compliance
- Network Errors

The Network Summary report uses the folder concept from Topology Maps to allow organization of sets of Aerohive devices by folder, building, and floor. Reports are located as a new tab of their own besides the Monitor tab.

Network Summary report helps administrators identify usage trends and be proactive in planning network capacity. Administrators can quickly visualize clients, client OS groups, or users taking up most bandwidth, and identify which SSIDs are seeing most clients and bandwidth usage during which times of the day, week or month. The report also allows displays Aerohive devices experiencing errors or compliance issues. Reports are available in PDF format and can be scheduled for periodic delivery via email or viewed on-demand for data going back one year.

High Density Performance Improvements

HiveManager now provides more granular and flexible control over traffic-optimizing features. When an administrator creates or edits a radio profile, the traffic optimization settings are now available in an expandable section called Optimizing Management Traffic Settings, and allow an administrator to define how the Aerohive devices handle band usage and steering.

This feature is particularly useful in implementations where there is relatively dense client deployment without dense (overlapping) AP deployment, such as in schools, training facilities, and similar environments. By steering clients to a less-utilized band, APs can provide opportunities for better throughput and ease congestion in the overused spectrum. Together with load balancing clients across multiple APs, this results in improved overall performance and quality of experience for WLAN clients in a dense environment.

<p>Station Number-Based Load Balancing</p>	<p>Multiple hive members within radio range of one another can distribute clients among themselves. Prior to this release, the only configurable option for this feature was based on airtime consumption. Now APs can be configured to balance the wireless load strictly based on the number of stations associated to the APs.</p>	<p>Within a hive, client devices are evenly distributed across available APs. In deployments where the airtime usage of client devices is homogenous, this feature will fairly distribute load across the network.</p>
<p>OS Detection via DHCP</p>	<p>Aerohive devices now detect the operating system of associated clients using DHCP option 55.</p>	<p>This feature provides a much faster and easier way to detect client operating system rather than waiting for the client to open an HTTP session to detect the user agent. The detected operating system will be displayed in the client information in the Monitor tab, used for the Client Classification and MDM Enrollment features, and will be available in the Client OS distribution report under the Network Summary report.</p>
<p>Dual-Band Wireless Intrusion Prevention System scanning for Single Radio devices</p>	<p>The AP110 and BR200-WP now support enabling rogue detection and mitigation on both 2.4Ghz and 5Ghz bands regardless of which spectrum is in use to service clients. The background scanning will scan all available channels in the AP's region, including DFS channels</p>	<p>This feature assists the Aerohive devices in detecting rogue access points and clients on either wireless band, and allows a single-radio device to assure PCI compliance. This extends to the BR200-WP, which further collapses the number of devices required for a wired/wireless network subject to PCI compliance.</p>

<p>Performance Tuning of Simultaneous Dual-Band Operation</p>	<p>Simultaneous dual-band performance has been optimized on Aerohive access points.</p>	<p>Under certain rare circumstances, wireless performance was negatively affected by simultaneous dual-band operation, which has now been corrected with this release.</p>
<p>Device Registration Code for Routers</p>	<p>Administrators can now require a device registration code when deploying Aerohive branch routers to remote locations before allowing the device to collect its configuration from HiveManager.</p>	<p>This feature prevents an unauthorized user from intercepting a branch router intended for a valid employee and using the auto-provisioning feature to gain access to the corporate network.</p>
<p>DirectIP support for Verizon LTE modems</p>	<p>Aerohive routers now support automatic switching between a Verizon 4G/LTE network and a 3G/EVDO network when using the Verizon Pantech UML290 USB modem.</p>	<p>This feature allows a user with an Aerohive branch router to take advantage of the broad coverage available on the EVDO network while still utilizing the much faster LTE network in areas where coverage is available.</p>
<p>Branch Router Static Routing Advertisement to VPN Gateway</p>	<p>In 5.0r3, Aerohive routers added support for static routes but did not share them with the VPN gateway. In 5.1, the routers can now share their static routes with the rest of the network via the Cloud VPN Gateway (CVG).</p>	<p>Allows hosts at the corporate site and other branch sites to access resources that are not directly connected to the Aerohive branch router without human intervention or the overhead of an additional routing protocol.</p>
<p>BR100 with AP Function</p>	<p>In 5.1, the BR100 device can now be converted to a layer 2 access point instead of a routing device with NAT. The BR100 as an access point has a single 2.4Ghz radio and will support bridging via the 4 available Ethernet ports.</p>	<p>This feature allows an administrator to configure the BR100 as a low-cost access point to provide Wi-Fi coverage in areas where cost is a limiting factor.</p>

<p>Cloud VPN Gateway Layer 2 Support</p>	<p>The Cloud VPN Gateway (CVG) can now support layer 2 features such as GRE tunnel termination, RADIUS server/proxy, PPSK server, and layer 2 VPN tunnel termination.</p>	<p>With the CVG being a virtual machine that runs in VMware ESXi hypervisor, it becomes a scalable resource to add additional capacity for Aerohive HiveOS features that may be limited by hardware available in the traditional access points.</p>
<p>Policy Based Routing</p>	<p>Adds flexible WAN failover and configurable user-profile-based load balancing functionality to the Aerohive branch routers.</p>	<p>Policy Based Routing allows an administrator to configure egress routes based on user profile or specific network; for example, it is possible to allow employee users to fail over to the USB modem while limiting access for guest users when the device is using the USB modem as its primary WAN interface.</p>
<p>Custom RADIUS Attribute support</p>	<p>Aerohive devices can now use any attribute that is returned by a RADIUS server to identify a user profile. The attribute used for user profile selection must match the name of the local RADIUS user group on the Aerohive device, and that allows the device to apply the matching user profile to the authenticated user.</p>	<p>Network administrators who assign user roles based on such as Filter ID attribute for older wireless products can now use Aerohive products without making changes to the RADIUS infrastructure.</p>
<p>User Profile ID Attribute in RADIUS Accounting Packet</p>	<p>Aerohive devices can now return a "User Profile ID" attribute in the RADIUS accounting packets that are logged back to the RADIUS server.</p>	<p>The addition of the "User Profile ID" attribute allows network administrators to better track the network activity of clients, and to correlate those accounts with their assigned privileges.</p>

Management Network as a Network Type

In addition to the existing types of network objects "Internal Use" and "Guest Use", in 5.1 there is a new type called "Management". This network type is designed for the management network on which an Aerohive router communicates with other Aerohive devices, and requires that DHCP and DNS services are enabled.

Simplifies the creation of a management network object to ensure all the necessary configuration options are selected to successfully deploy a unified network policy to a group of Aerohive devices including a branch router.

Topology Folders

Folders are now available to organize Aerohive devices in topology maps into groups based on a hierarchical structure. Users can also move floors and buildings within the topology hierarchy.

This feature enhances report management and makes it easier to correlate data based on aggregate data from a group of Aerohive devices.

MORE INFORMATION

Partner Center – <http://partners.aerohive.com/>

HiveManager Online Free Wi-Fi Planner – <http://www.aerohive.com/planner>

HiveManager Online Demo – <http://www.aerohive.com/demo>