Firmware 8.1.0 Beta 2 Release Notes

Release Date: May 20, 2020

Devices Supported

This firmware release supports the following devices:

X Series	EPX / SDX / MBX / 310X / 20X
Balance:	20X / 20 / 30 / 30 LTE / 30 Pro / 50 / One / 210 / 310 / 310X / 305 HW2 / 380 HW6 / 580 HW2-3 / 710 HW3 / 1350 HW2 / 2500 / SDX
MAX:	BR1 MK2 / BR1 HW2-3 / BR1 Slim / BR1 Mini / BR1 M2M / BR1 ENT / BR1 IP67 / BR2 / BR1 IP55 HW2-4 / BR2 IP55 HW2-3 / HD2 / HD2 IP67 / HD2 Mini / HD2 Dome / HD4 / HD4 IP67 / Transit / Transit Duo / Transit Mini / Hotspot / On-The-Go HW2 / 700
Surf:	SOHO HW2 / SOHO MK3
MediaFast:	200 / 500 / 750 / HD2 / HD4
SpeedFusion Engine	SFE / SFE CAM
FusionHub	FusionHub

Important Notices

- For the following models, the unit must be upgraded to Firmware 7.1.2 first before upgrading to 8.0.0 or above.

Product	Hardware Revision
MAX BR1	HW2-3
MAX BR1 IP67	HW1
MAX BR1 Mini	HW1-2
MAX BR1 Pro	HW2,4-5
MAX BR1 Slim	HW1
MAX BR2	HW2
SOHO	HW2

- **PepVPN backward compatibility option is no longer available**. By deprecating the old firmware versions, we now have a more secure handshake channel as the default setting, only TLS 1.2 will be accepted, no more TLS 1.0 and 1.1 for the old devices. Thus, if you are using devices running Firmware 6.1 or older, you will no longer be able to form PepVPN tunnels with those devices unless the firmware is updated.
- Internet Explorer 11 is no longer supported by Web Admin.
- Updated minimum version of supported browser:
    - Mozilla Firefox 54
    - Google Chrome 51
    - Safari 10
    - Microsoft Edge 15

New Features

Reference	Description	Device Supported
20270	**[MediaFast & KVM]** Added KVM support	**MediaFast:** 500, 750
22279	**[Wi-Fi WAN]** Added support for WPA3 security policy.	**MAX:** 700, BR1/2, HD2/4, Transit (Exclude: BR1 ENT, HD2 Mini/Dome) **MediaFast:** HD2/4 **X Series**: MBX **Surf SOHO**
22577	**[SpeedFusion Cloud]** Added SpeedFusion Cloud supporting.	**All Models** (Except **FusionHub**)
21868	**[Drop-in Mode]** Added Drop-in mode support	**Balance:** All **MAX:** All **MediaFast:** All **X Series**: All
19978	**[SpeedFusion]** Revamped SpeedFusion Chart shows additional statistics	**Balance:** B210 or above **MAX:** 700, HD2/4, Transit **MediaFast:** All **SFE** **X Series**: EPX, SDX, MBX, 310X **FusionHub**
22571	**[SpeedFusion Cloud]** Added ability to connect up to three region of SpeedFusion Cloud	**All Models** (Except **FusionHub**)

Feature Improvements

Reference	Description	Device Supported
14387	**[GPS]** Device will now use the GPS to sync time if the NTP server is unreachable	**MAX:** BR1/2, HD2/4, Transit **MediaFast:** HD2/4 **X Series**: EPX, SDX, MBX, 310X, 20X
15948	**[SNMP]** Added the ability to define the Allowed WAN Interface for SNMP under System > WAN Connection Access Settings	**All Models**
16794	**[Drop-in Mode]** Layer 3 SpeedFusion added	**Balance:** All

	compatibility for Drop-in Mode with Shared IP	**MAX:** All **MediaFast:** All **X Series**: All
6181	**[NTP Server]** Added support for NTP Server	**Balance:** All **MAX:** HD2/4, Transit **MediaFast:** All **X Series**: All
18215	**[EPX]** Added support for MediaFast / ContentHub / Docker	**X Series**: EPX
18932	**[Captive Portal]** Fixed an issue where "502 Bad gateway" may be shown on Wi-Fi clients when they are accessing the landing page.	**All Models** (Except **FusionHub**)
22264	**[API & Cellular]** Added the ability to receive SMS messages through cellular connections.	**Balance:** 20X, 30 LTE/Pro, 310X **MAX:** BR1/2, HD2/4, Transit **MediaFast:** HD2/HD4 **X Series**: EPX, SDX, MBX
22263	**[API]** Added the ability to send USSD codes via cellular connections	**All Models**
21683	**[OpenVPN]** Custom DNS Servers in LAN DHCP Server can now be pushed to client	**All Models**
22145	**[AP Controller]** Added support for 802.11k neighbor report base on Wireless SSIDs	**Balance:** All **MAX:** 700, HD2/4, Transit **MediaFast:** All **X Series**: EPX, SDX, MBX
20763	**[Outbound Policy]** Added web filtering categories to Outbound Policy for SpeedFusion / PepVPN Sub-Tunnel	
20914	**[EPX]** Added support for jumbo frame on LAN	**X Series**: EPX
19916	**[Web UI]** Added the Ability to access Web Admin page from IP Forwarding WAN via LAN/VLAN IP	**All Models**
22005	**[MediaFast]** Updated the MediaFast Certificate to support macOS 10.15 and iOS 13 clients	**MediaFast:** All
21609	**[AP Controller	Wi-Fi AP]** Added WPA3 Support	**Balance:** All **MAX:** All **MediaFast:** All **X Series**: EPX, SDX, MBX **Surf SOHO**
21301	**[LAN / SDX]** Enhanced the LAN Port Setting page	**X Series**: SDX

21610	**[MediaFast 500/700]** Added support for SpeedFusion Bonding by default	**MediaFast:** 500, 750
22364	**[DNS Server]** Added a maximum length restriction for some DNS settings in accordance to RFC	**Balance:** 210 or above **MediaFast:** 500/750
22444	**[Wi-Fi WAN]** Added support for 802.11w on the WWAN	**MAX:** 700, BR1/2, HD2/4, Transit (Exclude: BR1 ENT, HD2 Mini/Dome) **MediaFast:** HD2/4 **X Series**: MBX **Surf SOHO**
22300	**[API]** Added the ability to set a new Billing Cycle	**All Models**
21994	**[DHCP]** Fixed an issue where the DHCP server may not reply to DHCP discovery or requests in rare situations.	**All Models**
22039	**[System]** Added the ability to access CLI from the WAN via LAN/VLAN IP in IP Forwarding mode	**All Models**
22058	**[Captive Portal & Enterprise models]** Added Support for 16 Captive Portal Profiles in enterprise-grade models	**Balance:** 305/380 or above **X Series**: EPX, SDX
21969	**[WAN]** Added support for using the default LAN IP address as the outgoing IP for Local Services.	**All Models**
22584	**[Web UI]** Added a TB scale in addition to MB, GB in Usage Reports	**All Models**
21352	**[Cellular]** Added an indication on Dashboard when restricted management SIM is connected	**Balance:** 30 LTE/Pro **MAX:** BR1/2, HD2/4, Transit **MediaFast:** HD2/HD4 **X Series**: EPX, SDX, MBX, 310X, 20X
22285	**[Web UI]** Updated supported browsers: Mozilla Firefox 54 Google Chrome 51 Safari 10 Microsoft Edge 15	**All Models**
21888	**[System]** Updated Daylight Saving Time support for "Pacific/Fiji" and "Australia/Lord_Howe" regions	**All Models**
22222	**[System]** Added Support for Session Logging	**All Models**
22353	**[DPI]** Added the ability to detect P2P, Gaming categories, and IoT Protocols	**All Models**
22280	**[DPI]** Updated the protocols of DPI Report which will be	**All Models**

	consistent with Web UI	
22320	**[Web UI]** After pressing Apply Changes, the WebUI will now stay on the same page and display a message instead of going to the Dashboard page.	**All Models**
21877	**[DPI]** Added recognition of new protocols	**All Models**
22113	**[IP Passthrough]** Added the ability to define custom DNS for IP Passthrough WAN	**Balance:** 30 Pro **MAX:** BR1, Transit Surf: SOHO HW2 / MK3 **X Series**: 20X
22032	**[NetFlow]** Added NetFlow Support. (To enable this feature, please go to https://<Device's IP>/cgi-bin/MANGA/support.cgi)	**Balance:** 30 LTE/Pro, One/Two, 210/310 HW4 or above, 305/380 or above **MAX:** BR1 ENT, Transit, 700 HW3 or above, HD2 HW5 or above, HD4 **MediaFast:** All **X Series**: EPX, SDX, MBX, 310X, 20X **FusionHub**
21866	**[Cellular]** Added custom hosts for ping target on SmartCheck	**Balance:** 30 LTE/Pro **MAX:** BR1/2, HD2/4, Transit **MediaFast:** HD2/HD4 **X Series**: EPX, SDX, MBX, 310X, 20X
21774	**[URL Logging]** URL Logging has been relocated from Content Blocking page to System > Event Log. If Server/Port information is not specified for URL or Session Logging, Remote Syslog server settings will be used.	**All Models**
22159	**[HD4 | MBX]** Added voltage and current threshold information to Event Log. (To enable this feature, please go to https://<Device's IP>/cgi-bin/MANGA/support.cgi)	**MAX:** HD4 **X Series**: MBX
22516	**[Client List]** Added ability to disconnect the Wi-Fi and Remote User Access clients.	**All Models** (Except **FusionHub**)
21732	**[Web UI]** The Firewall Log will now put in its own page rather than in the Event Log	**All Models**
22522	**[OpenVPN]** Added the ability to define port number and to choose whether to use UDP or TCP mode	**All Models**
22430	**[E-mail Notification]** Added support of STARTTLS	**All Models**

22565	**[WAN Analysis]** Added support for UDP tests of up to 2 Gbps bandwidth.	All Models
21209	**[SpeedFusion]** Added the ability to use an external TCP Accelerator to support the WAN connections.	**Balance:** B210 or above **MAX:** 700, HD2/4, Transit **MediaFast:** All **SFE** **X Series**: EPX, SDX, MBX, 310X **FusionHub**
22024	**[System]** Added support for ECDSA certificates in the Certificate Manager	All Models
22185	**[OpenVPN]** Added the ability to push DHCP Option 15 to client	All Models
20308	**[BGP]** The Status display now shows exported routes	All Models
21947	**[SpeedFusion]** QoS Individual Bandwidth Limits can now be applied to SpeedFusion profiles	**Balance:** B210 or above **MAX:** 700, HD2/4, Transit **MediaFast:** All **SFE** **X Series**: EPX, SDX, MBX, 310X **FusionHub**
18403	**[Drop-in Mode]** Added support for VLAN clients ability to route traffic over Drop-in WAN	**Balance:** All **MAX:** All **MediaFast:** All **X Series**: All
21720	**[System]** Support TACACS+ for web admin access authentication	All Models

Resolved Issues

Reference	Description	Device Supported
16723	**[System]** Fixed an issue where Local DNS records do not work with Firewall / Outbound Policy by Hostname	All Models
20208	**[Cellular	Redundant SIM Slots]** Fixed an issue where the APN does not show in then WAN Interface on the unit when it does not have a Redundant SIM inserted.	**Balance:** 30 LTE/Pro **MAX:** BR1/2, HD2/4 (Except HD2), Transit **MediaFast:** HD2/HD4 **X Series**: EPX, SDX, MBX, 310X, 20X

21647	**[Wi-Fi AP]** Fixed an issue where the Client List may show 0.0.0.0 for Wi-Fi Client	**Balance:** 30 Pro, One **MAX:** 700, BR1/2, HD2/4, Transit (Exclude: BR1 ENT, HD2 Mini/Dome) **MediaFast:** HD2/4 **X Series**: MBX, 20X **Surf SOHO**
21723	**[SpeedFusion]** Fixed an issue where FEC is unable to reassemble packets properly	**Balance:** B210 or above **MAX:** 700, HD2/4, Transit **MediaFast:** All **SFE** **X Series**: EPX, SDX, MBX, 310X **FusionHub**
21614	**[SpeedFusion]** Fixed an issue where using SpeedFusion FEC causes system instability	**Balance:** B210 or above **MAX:** 700, HD2/4, Transit **MediaFast:** All **SFE** **X Series**: EPX, SDX, MBX, 310X **FusionHub**
22636	**[Captive Portal]** Fixed an issue where Wi-Fi users may get logged out if using InControl 2 to manage the Captive Portal.	**All Models** (Except **FusionHub**)
21756	**[SNMP]** Fixed an issue where SNMP may consume large amounts of CPU resources when Layer 2 SpeedFusion is established.	**All Models**
21954	**[LAN / SOHO MK3]** Fixed an issue where the LAN Access Port may not pass traffic on Surf SOHO MK3	Surf: SOHO MK3
21874	**[PPPoE]** Fixed an issue where the VLAN WAN which is using PPPoE provides an incorrect MTU value	**All Models**
22141	**[AP Controller]** Fixed an issue where the Client Connection History displays incorrect From / To columns	**Balance:** All **MAX:** 700, HD2/4, Transit **MediaFast:** All **X Series**: EPX, SDX, MBX
21840	**[USB WAN]** Fixed an issue where the WebUI is unable to display IMSI and ICCID	**Balance:** All **MAX:** BR1 ENT, HD2/4 Indoor Series **MediaFast:** All **X Series**: EPX, SDX, MBX, 310X **Surf SOHO**

21644	**[WAN as LAN & HA & Modular]** Fixed an issue where the WAN Port as LAN Port feature does not work after HA failover	**X Series**: EPX, SDX, 310X
22040	**[HA]** Fixed an issue where the Outbound Policy affects the local service of a Slave unit in an HA pair	**Balance:** 210 or above **MAX:** BR1/2, HD2/4, Transit **MediaFast:** All **X Series**: EPX, SDX, MBX, 310X
22561	**[PoE & HD4 IP67]** Fixed an issue where the PoE port does not work on the MAX HD4 IP67	MAX HD4 IP67
22244	**[Outbound Policy]** Fixed an issue where the Outbound Policy Expert Mode Rules cannot override OSPF/BGP Routes learned from the LAN	
22158	**[DPI]** Fixed issues causing system instability when using DPI	**All Models**
22293	**[Captive Portal]** Fixed an issue where throughput limits would not be released after the E-mail address is verified using InControl 2 E-mail Authentication.	**All Models** (Except **FusionHub**)
22324	**[System]** Fixed an issue of User Report is unable to show PepVPN usage per WAN	**All Models**
22276	**[Web UI / BR1 IP55 HW4]** Fixed an issue where the Web UI cannot save changes to cellular antenna selection on the BR1 IP55 HW4.	**MAX:** BR1 IP55 HW4
22669	**[Captive Portal]** Enhanced HTTPS redirection on the captive portal landing page for deployments using InControl Appliance and a custom certificate.	**All Models** (Except **FusionHub**)
22658	**[Outbound Policy & Firewall by Hostname]** Fixed a compatibility issue with DNS server 1.1.1.1	**All Models** (Except **FusionHub**)
22683	**[IP Passthrough]** Fixed an issue where the IP Passthrough is not enabled after pressing "Apply Changes" when the WAN is using a Static IP	**Balance:** 30 Pro **MAX:** BR1, Transit Surf: SOHO HW2 / MK3 **X Series**: 20X
22037	**[Outbound Policy]** Fixed an issue where the Weighted Balance algorithm with Fall-through does not work on WANs that have failed their Health Check.	
22059	**[Wi-Fi AP]** Fixed an issue where using InControl 2 to manage the Wi-Fi AP would cause an unexpected 5GHz channel to be used if the Channel is set to "Auto"	**Balance:** 30 Pro, One **MAX:** 700, BR1/2, HD2/4, Transit (Exclude: BR1 ENT, HD2 Mini/Dome)

		MediaFast: HD2/4 **X Series**: MBX, 20X **Surf SOHO**
22148	**[Drop-in Mode & HA]** Fixed an issue where using Drop-in mode with HA will cause the WAN Interface of the Slave unit to reply to ARP requests incorrectly.	**Balance:** 210 or above
22049	**[Wi-Fi WAN]** Fixed an issue where the Wi-Fi WAN Channel Width will display "20 MHz" after being configured to "20/40/80 MHz"	**MAX:** 700, BR1/2, HD2/4, Transit (Exclude: BR1 ENT, HD2 Mini/Dome) **MediaFast:** HD2/4 **X Series**: MBX **Surf SOHO**
22022	**[LAN PoE / IP55]** Fixed an issue where PoE ports do not work on BR1/2 IP55	
22702	**[System]** Fixed an issue where disconnected WAN connections may still accept routing UDP traffic the to LAN.	**All Models**
22373	**[B310X]** Fixed an issue where the Ethernet Port status display showed incorrect information on Balance 310X	**X Series**: B310X
21353	**[Cellular]** Fixed an issue where another SIM will not be used when the current SIM reaches its bandwidth quota and becomes restricted to management traffic	**Balance:** 30 LTE/Pro **MAX:** BR1/2, HD2/4, Transit **MediaFast:** HD2/HD4 **X Series**: EPX, SDX, MBX, 310X, 20X
22242	**[System]** Fix for the CVE-2020-8597 vulnerability	**All Models**
22687	**[System]** Fix for the CVE-2019-9169 vulnerability	**All Models**
22706	**[Cellular	Redundant SIM Slots]** SIM cards cannot be detected when only SIM slot B has SIM card	**Balance:** 30 LTE/Pro **MAX:** BR1/2, HD2/4 (Except HD2), Transit **MediaFast:** HD2/HD4 **X Series**: EPX, SDX, MBX, 310X, 20X
22688	**[System]** Fix for the CVE-2018-1000517 vulnerability	**All Models**
22690	**[System]** Fix for the CVE-2019-5747 vulnerability	**All Models**
22691	**[System]** Fix for the CVE-2019-1543 vulnerability	**All Models**
22112	**[PepVPN]** Fixed an issue in Port Forwarding where PepVPN NAT Mode may not work after cold failover	**All Models**

21976	**[LAN / SFE]** Fixed an issues where the LAN packet may forward to the wrong interface	**SFE**: SFE, SFE CAM
22637	**[SpeedFusion Cloud]** Outbound Firewall Rules is not effective for SpeedFusion Cloud rather than Internal Firewall Rules	**All Models** (Except **FusionHub**)

Report an Issue

To report an issue, please open a support ticket at:
https://ticket.peplink.com/ticket/new/public

For the latest development news and known issues, take a look at our forums:
https://forum.peplink.com/