

Firmware 8.1.0 Beta 3 Release Notes

Release Date: Jun 10, 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, HD1/2 Dome) MediaFast: HD2/4 X Series: MBX Surf SOHO
22577	[SpeedFusion Cloud] Added SpeedFusion Cloud support	All Models (Except FusionHub)
22032	[NetFlow] Added NetFlow Support (To enable this feature, please go to <a href="https://<Device's IP>/cgi-bin/MANGA/support.cgi">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
21868	[Drop-in Mode] Added Drop-in mode support	Balance: All MAX: All MediaFast: All X Series: All
22773	[GPS] Added an option to select GPS as the primary time sync source under System > Time	MAX: BR1/2, HD2/4, Transit MediaFast: HD2/4 X Series: EPX, SDX, MBX, 310X, 20X
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)

18006	[SpeedFusion] Added Dynamic Weighted Bonding: a new SpeedFusion algorithm for cellular connections (To enable this feature, please go to <a href="https://<Device's IP>/cgi-bin/MANGA/support.cgi">https://<Device's IP>/cgi-bin/MANGA/support.cgi)	Balance: B210 or above MAX: 700, HD2/4, Transit MediaFast: All SFE X Series: EPX, SDX, MBX, 310X FusionHub
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Feature Improvements

Reference	Description	Device Supported
22780	[System] Added UDP protocol supporting for Custom Service Forwarding	All Models
12265	[System] IP Forwarding WAN supports NAT for Multiple LAN network	All Models
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 compatibility for Drop-in Mode with Shared IP	Balance: All 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
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
21048	[SNMP] Updated Cellular and Wi-Fi MIB files	All Models
20763	[Outbound Policy] Added web filtering categories to Outbound Policy for SpeedFusion / PepVPN Sub-Tunnel	All Models (Except FusionHub)
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 Wi-Fi WAN if the associated AP supports 802.11w	MAX: 700, BR1/2, HD2/4, Transit (Exclude: BR1 ENT, HD2 Mini, HD1/2 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 consistent with Web UI	All Models
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: SOHO HW2 / MK3 X Series: 20X
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	MAX: HD4

	information to Event Log. (To enable this feature, please go to <a href="https://<Device's IP>/cgi-bin/MANGA/support.cgi">https://<Device's IP>/cgi-bin/MANGA/support.cgi)	X Series: MBX
22516	[Client List] Added ability to disconnect the Wi-Fi and Remote User Access clients	All Models (Except FusionHub)
22762	[System] Added support of telnet command inside SSH CLI	All Models
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
22486	[OpenVPN] Added ability to push WINS server directly to clients	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

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
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)
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, HD1/2 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: 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
22479	[SpeedFusion] Fixed an issue where FEC may drop packets when the packet rate is low	Balance: B210 or above MAX: 700, HD2/4, Transit MediaFast: All SFE X Series: EPX, SDX, MBX, 310X FusionHub
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: 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	All Models (Except FusionHub)
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: SOHO HW2 / MK3 X Series: 20X
22420	[System] When a default route exists on a LAN-based Static Route, the Client Usage report may display incorrect usage	All Models
22824	[IC2 Bandwidth Usage] Fixed an issue where the Per-Minute Bandwidth Usage information for some intervals are missing on devices that have more active WANs	Balance: 1350, 2500 EPX
22707	[Captive Portal] Fixed an issue where the captive portal splash page cannot be shown	All Models (Except FusionHub)
22733	[Wi-Fi AP] Fixed an issue where incorrect SSID usage caused the device to lose the ability to connect to IC2	Balance: 30 Pro, One MAX: 700, BR1/2, HD2/4, Transit (Exclude: BR1 ENT, HD2 Mini, HD1/2 Dome) MediaFast: HD2/4 X Series: MBX, 20X Surf SOHO
22737	[AP Controller] Fixed an issue where the AP Controller stopped managing APs in rare situations	Balance: All MAX: 700, HD2/4, Transit MediaFast: All X Series: EPX, SDX, MBX
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	All Models (Except FusionHub)
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,

		HD1/2 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, HD1/2 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	MAX: BR1/2 IP55
22702	[System] Fixed an issue where disconnected WAN connections may still accept routing UDP traffic to the 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
22821	[SpeedFusion] Fixed an issue where the TCP data tunnel does not work on a high latency link	Balance: B210 or above MAX: 700, HD2/4, Transit

		MediaFast: All SFE X Series: EPX, SDX, MBX, 310X FusionHub
22837	[System] Fixed an issue where SIP packets may be dropped if its CSeq field equal to 0	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)

Known Issue

Wi-Fi AP may not work after modified the Wi-Fi related settings on the following models. Reboot is required to resume Wi-Fi AP.

Product	Hardware Revision
MAX BR1	HW2-3
MAX BR1 IP67	HW1
MAX BR1 M2M	HW1-3
MAX BR1 Mini	HW1-2
MAX BR1 Pro	HW2,4-6
MAX BR1 Slim	HW1
MAX BR2	HW2
MAX Transit Mini	HW1
SpeedFusion Engine	HW1-2
UBR LTE	HW1-2
MAX On-The-Go	HW2
Surf SOHO	HW2
MAX 700	HW1-2
MAX BR1 Pro	HW3
MAX BR2	HW3

MAX HD2	HW1-4
MAX HD2 IP67	HW1

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/>