
[NEW_RELEASE] System Software Grasshopper M5 18.3.5890 Release Notes

BS450 required minimum version: GrasshopperEngRel 18.3.5483

CPE250/CPE350 required minimum version: GrasshopperEngRel 18.3.5372

NEW FUNCTIONALITY:

Radius

- * Radius deadtime. This attribute was only useful when more than one radius server was configured. For this reason, it has been removed from AA Setup web.
- * Radius lease T0. This attribute is no longer used by radius daemon, so it has been removed from AA Setup web.
- * Radius related log messages are now more readable and explanatory.
- * Reject cache timeout (AAA reject timeout) now takes radius session timeout parameter instead of radius lease T0.
- * Radius effective session timeout is more accurately computed. This means that radius re-authentications take place closer to the actual session timeout.

CORRECTED BUGS:

- * If network provision mode was bridged or bridged VLAN and provision type was radius, the data interface *wethX* was not configured.
- * In some scenarios, radius daemon tried to authenticate users which were no longer present.
- * Flows web now shows radius information correctly.
- * Provision merge functionality was buggy and might cause crashes depending on what were the configurations to be merged.
- * When default provision file nodes were created (i.e. after clearing the database), "permit self signed" attribute was not correctly initialized and led to an invalid AA file.
- * When loading provision database from XML file, users with invalid or not existing templates were partially inserted into database.
- * If spectrum analysis was started while it was already running, its internal status became invalid and it could not be started again.

[NEW_RELEASE] System Software Grasshopper M4 18.3.5873 Release Notes

BS450 required minimum version: GrasshopperEngRel 18.3.5483

CPE250/CPE350 required minimum version: GrasshopperEngRel 18.3.5372

NEW FUNCTIONALITY:

N/A

CORRECTED BUGS:

DragonflyM8 16.2.5869

* This release includes all new changes of DragonflyM8 16.2.5869.

[NEW_RELEASE] System Software Grasshopper M3 18.3.5859 Release Notes

BS450 required minimum version: GrasshopperEngRel 18.3.5483

CPE250/CPE350 required minimum version: GrasshopperEngRel 18.3.5372

NEW FUNCTIONALITY:

DragonflyM7 16.2.5850

* This release includes all new changes of DragonflyM7 16.2.5850.

Reverse remote commands

* This commands are sent from CPE to BS. Right now, the available commands allows to enable or disable the alignment mode which can be selected in the web ("Link Status") and mac_ctrl, both in CPE side.

Handheld Unit

* When handheld unit is connected to the CPE and "Radio" menu is selected, the CPE automatically asks the BS to enable the alignment mode and warns with an alarm about this situation. If the user leaves "Radio" menu or the handheld unit disconnects, the alignment mode is disabled.

CORRECTED BUGS:

* N/A

[NEW_RELEASE] System Software Grasshopper M2 18.3.5789 Release Notes

BS450 required minimum version: GrasshopperEngRel 18.3.5483

CPE250/CPE350 required minimum version: GrasshopperEngRel 18.3.5372

NEW FUNCTIONALITY:

DragonflyM6 16.2.5789

* This release includes all new changes of DragonflyM6 16.2.5789.

CPE350 support

* Added support for CPE350 product.

BS450 runtime optimization

* Users balance logic improved so the processing time is lower and memory allocations have been removed to avoid stressing the kernel memory management system.

* Bus usage optimized between controller board and the radios using a round-robin algorithm to transmit the packets.

* Fixed some interlockings between system timers and high priority threads.

DL interference in multiradio devices

* New DL interference estimation method. Now DL interference is measured for each radio separately in multiradio CPEs.

ARQ improvements

* Now the ARQ subsystem is able to estimate the ACK RTT latency and auto-adjust the retry timeout based on the measured latencies which helps a lot in saturated carriers and avoids unnecessary resend of packets.

* Fragmentation of packets can be done in any position, thus removing the need to do so in a block size. This has proved to be very helpful to reduce latency with small UL allocations.

* Now the No-window-available counter is increased in partial-no window situations when some blocks could be sent. Previously only if exactly no-blocks could be sent it was increased.

* ARQ block size maximum value has been increased from 1024 to 2048. This

modification reduces the number of blocks per second and helps to avoid "no windows" in multiradio CPEs.

- * DL packet processing logic improved for multiradio CPEs.

Autopolling and scheduler optimization mode

- * Improved user autopolling system. Now the system is configurable ("BW/Sched Setup" - "Scheduling Config" - "Optimization Mode") and, in general, it will poll more users per frame than in previous firmware versions which improve the latency.

Regulatory region improvements

- * Now channel bandwidth and frame duration are controlled by regulatory requirements.
- * Regulatory aspects now can specify a frequency step so only frequencies multiple of that step are allowed.
- * Radio Setup webpage shows different values of EIRP depending on current channel BW.
- * Default configuration file now has valid frequencies for ES/EU region.

UPnP

- * Default configuration file updated for CPE250. Now UPnP is enabled by default.

Web

- * Traffic throughput is correctly shown by carrier for multiradio devices in "Zone Carriers" webpage.
- * Now the approx distance in the "Signal Stats" - "Basic View" webpage does not show the error for all users, since it is the same. It can be seen as a hover tooltip.
- * Now the basic table contents, except for the hardware address and alias of each CPE, is center-aligned in the "Signal Stats" - "Basic View" webpage.
- * "BW/Sched Setup" page description updated.
- * Carrier temperature was not correctly shown in "Status & Alarms" page for too high or low values.
- * Minor web visualization improvements.

Miscellaneous

- * Carrier overlap is not supervised in multiradio CPEs.

CORRECTED BUGS:

- * If CPE250 was configured as router NAT with PPPoE and a system user was deleted, the device will not be longer accessible from its webpage until it was rebooted.
- * Improved robustness in the ULMAP parse method. Now invalid UIUCs, startimes and lengths are ignored. This seems might be the cause for a bug in which the CPE stays connected to a BS when its CID is 1 and it does not receive the RNG-ABORT or REMOTE-DREG messages. Additionally, CID 1 is prereserved and is no longer assigned to any CPE.
- * Opt82 Injection fixed. Now it always inserts an option 255 to signal the end of the options. It seems that some servers (in particular CISCO DHCP Relays) drop packets without the 255 DHCP option at the end.
- * Bug fixed in scheduler logic. With small allocations in the uplink the scheduler was not correctly allocating data for services.
- * Oversubscription parameter was not being correctly checked in initial ranging process.
- * Factory restore was not properly removing all spectrum analysis information.

[NEW_RELEASE] System Software Grasshopper M1 18.3.5674 Release Notes

BS450 required minimum version: GrasshopperEngRel 18.3.5483

CPE250 required minimum version: GrasshopperEngRel 18.3.5372

NEW FUNCTIONALITY:

DragonflyM5 16.2.5674

* This release includes all new changes of DragonflyM5 16.2.5674.

Frame Division Preference

* Now the BS can be adjusted to prefer DL or UL (or to be neutral) when computing the dynamic frame division.

Miscellaneous

* Now ARP reply mode can be configured via mac_ctrl.

* Now the "Basic Cell Stats" has a new interpretation of the maximum available traffic rate, which is no longer called "throughput". It uses the efficiency instead of a magic value to compute the maximum available rate.

* Some traces removed from kernel log.

CORRECTED BUGS:

* Max distance bug in the BS450. If maximum distance was configured to high values (~ 38500 km), the CPEs did not enter the cell regardless of their actual distance.

[NEW_RELEASE] System Software Grasshopper 18.3.5648 Release Notes

BS450 required minimum version: GrasshopperEngRel 18.3.5483

CPE250 required minimum version: GrasshopperEngRel 18.3.5372

NEW FUNCTIONALITY:

CPE250 support

* Created base release for Grasshopper. BS and CPE support for 70 Mbps downlink flows.