
System Software Honeybee 19.6.6100 Release Notes

Compatibility with BS450 and BS850 products.

Required minimum version: GrasshopperEngRel 18.3.5483.

NEW FUNCTIONALITY:

BS850 support

- * Added support for BS850 product.

Performance optimizations

- * Multiple optimizations have been done in the critical path which improve the overall system performance, especially in base stations highly loaded.

Internal bus robustness improvements

- * Critical messages, which are exchanged between the radios and the main CPU, are sent multiple times to reduce the probability of being lost. If one of them is lost, the radios may be able to guess what message or messages are missing and reconstruct the frame accordingly.
- * One of the messages is lighter since unnecessary bytes are no longer sent.

Service Groups

- * The service groups allow modification of provision service parameters in runtime such as QoS prio or maximum rate when a packet matches with a classifier. These parameters are changed for a period which is configured by the service group.
- * A service can have associated up to 4 service groups and also a classifier can trigger up to 4 service groups.

Weighted algorithm for multiradio services

- * In CPE250 and CPE350, multiradio downlink services use two or three radios to transmit. Now the base station takes into account the downlink modulation of each radio. In this way, if the radios have different modulations, the base station will assign more symbols to the radios with better modulations.

Signal cycle improvements

- * Signal cycle process is now faster and allows probing up to 8 users per destination carrier.
- * Users can be balanced without having finished their signal cycle, as long as they have more than one valid signal cycle stat.
- * Broadcast HFHs are notified to all users and those which are affected invalidate the corresponding signal cycle stat.

Radius

- * Added the field Reauth Retry Time to the radius configuration. It allows a single reauthorization when the radius server is down, changing the session timeout until the next reauthorization request.

Web

- * Signal Stats page now shows if the user has authenticated the BS. If authenticated, an image of a "key" is shown beside the MAC of the user. Additionally, this information is available in the CSV file which has a new column "BS_AUTH".
- * Signal Stats page now shows if the user has a BSID fixed. If so, an image of a "padlock" is shown beside the MAC of the user.
- * After stop-start MAC sequence traffic stats were not invalidated and the web showed incoherent values. Additionally, ethernet stats now take into account the bytes and packets counters overflow showing a rate of zero when this occurs.

Memory usage limitation

- * The total amount of memory which can be used by the tx services is limited. This value depends on the number of tx services.

Security

- * Minor security improvements.

Miscellaneous

- * Removed confusing log messages related to the GPS.
- * Added previous frequency to broadcast HFH log messages.

CORRECTED BUGS:

Critical bugs

* Multiple race conditions fixed in the balance module. All of them were related to the user's connection and disconnection steps and caused that some services kept wrongly active in the scheduler. This scenario causes, at least, the following crashes:

- * A kernel crash in scheduler thread.

- * Infinite loop in the scheduler thread. The device may be rebooted by its hardware watchdog or maybe it will remain hanged indefinitely.

- * Negative user's counters in Zone Carriers and Status & Alarms pages.

- * Bug fixed in base station scheduler. A race condition might cause some services were not deregistered from scheduler lists.

- * Bug fixed in multiradio CPEs balance logic. In some cases a slave radio might never transmit again after a balance had taken place.

- * Fixed some interlocking between balance and ethernet rx threads.

Minor bugs

- * When classifier stats were reset, "Signal Stats" webpage was loaded instead of reloading the "User Information" webpage.

- * Bug fixed in GetProvisionedUserList XML-RPC API method.

- * Memory leak fixed in flows.cgi webpage.

- * When MAC was stopped, the base station might not send RADIUS accounting stop messages for all the connected CPEs.

- * Big queries to the provision database, like a copy of a template with a lot of services, failed.