albentia systems

AerDocsis System Software Software Release Notes

HoneybeeM1 19.6.6172

December 9, 2020

albentia systems

Contents

albentia systems

1. Compatible devices and minimum versions

Product family	Devices	Minimum versions
Base Stations		
BS400 and BS800	AXS-BS-450-N AXS-BS-850-N	GrasshopperEngRel 18.3.5483
BS100	AXS-BS-150-N	Jelly M1 14.2.2187
User Terminals		
CPE100	AXS-CPE150-15 AXS-CPE150-RS	Jelly M1 14.2.2187
CPE200 and CPE300	AXS-CPE250-15 AXS-CPE250-RS AXS-CPE350-15 AXS-CPE350-RS	GrasshopperEngRel 18.3.5372
Radio Links		
LNK100	LNK-LU1150-N LNK-LU1150-23	Jelly M1 14.2.2187

2. What's new in this release?

2.1 New features

2.1.1 Common to all devices

Ethernet interface MTU

External interface MTU can be modified on the "Network Setup" webpage. See Appendix 4.3.

2.1.2 Base stations

BS Authentication

Now a BS can send and enable the generated CPE key to every connected CPE through the Cell Setup webpage. Thus, the BS/CPE authentication can be configured directly from the BS, making it easier.

Additionally, CPE key can be disabled and deleted for all connected CPEs on the BS Cell Setup webpage shown before.

See Appendix 4.1 for more details.

Radius

"Max Accounting Users" parameter created at AAA Setup webpage. This field lets the BS to limit the sending of accounting messages to a maximum number of CPEs simultaneously. Therefore, this field reduces the traffic bursts associated with these accounting messages, sending them in smaller groups spread over time.

See Appendix 4.2 for more details.

Security warning

Added a new "security warning" icon at Signal Stats web page which shows if a CPE has security issues such as default passwords or WAN services not blocked. See Appendix 4.4.

2.1.3 User terminals

Public WAN Service Filtering

This functionality allows the CPEs to block ICMP, SNMP, DNS, HTTP and SSH services at WAN interface if it has a public IP address.

Default configuration has this filter enabled. However, older equipment will have it disabled after update.

Public WAN Service Filtering can be enabled or disabled via remote commands.

More details in Appendix 4.5.

2.2 Enhaced features

2.2.1 Common to all devices

SNMP

Dragonfly SNMP tree deprecated. Now CPE100, BS100 and LNK1100 use the same tree that has long been used for CPE200, CPE300, BS400 and BS800. Check the SNMP framework for your Albentia devices.

Added new “radioSSStatsTable” table which returns the radio statistics such as RSSI, CINR or modulation for each. This table complements the “userInfoTable”, making its access easier for customers using simple indexes instead of the MAC address as ”userInfoTable” does.

The “albBasicInfoCommons” and “albBasicInfoSS” values have been modified and added to the tree in order to show useful device information.

ALBENTIA-AS-MIB.my has been corrected for bugs and warnings. Now all MIB Browsers can validate and read it correctly.

ARP reply mode

ARP reply mode cannot be configured anymore. By default, when the device receives a ARP request will reply only if the target IP address is local address configured on the incoming interface.

Security

Security improvements.

albentia systems

2.2.2 Common to all Base Stations

REST API. Disconnect users

A CPE can be disconnected from BS using the REST API. See Appendix 4.7 for details.

2.2.3 BS400 and BS800 Base Stations

REST API. Download signal cycle stats.

Signal cycle stats can be downloaded as a CSV file. See Appendix 4.6 for details.

2.2.4 User terminals

Firewall

Port forwarding rules now allow specifying the source IP address of the packet.

Port forwarding rules can be enabled or disabled. Very useful if customers want to save a rule to use it later.

If CPE networking mode is modified, NAT rules will be maintained.

See Appendix 4.8.

2.3 Fixed bugs

2.3.1 BS400 and BS800 Base Stations

Web

Minor visualization corrections.

Others

The oversubscription entry acceptance criteria has been improved and now reaches an accurate value.

If radius setup was modified some accounting messages could not be sent correctly.

2.3.2 Common to all User Terminals

Network

Default gateway may be missconfigured if CPE networking mode was “bridge with SMC” (with “only access to CPE through management interface” option) and then is changed to Routed NAT.

PPPoE configuration was not correctly loaded when it was working over VLAN.

If PPPoE over VLAN was configured before CPE was connected to BS, it failed because VLAN could not be created since wireless interface did not exist yet.

Visualization UPnP bug fixed. If external and internal ports were the same, the rule was not shown in the web.

Port redirecting could not work if DMZ was enabled.

Sometimes the DHCP server was not running after powering up the device, although it was already enabled by configuration.

Radio

Undesired CPEs link loss after a frequency change have been solved.

2.3.3 CPE200 and CPE300 User Terminals

Web

CPE "WAN - WAN Status" webpage graphs showed incorrect colours.

Others

BS authentication was not correctly enabled after rebooting the device although the web said it was.

MAC filtering was not working.

3. Important notes

3.1 BS800 Base Stations

In order to avoid problems during the update process, it is recommended to stop the radios before updating.

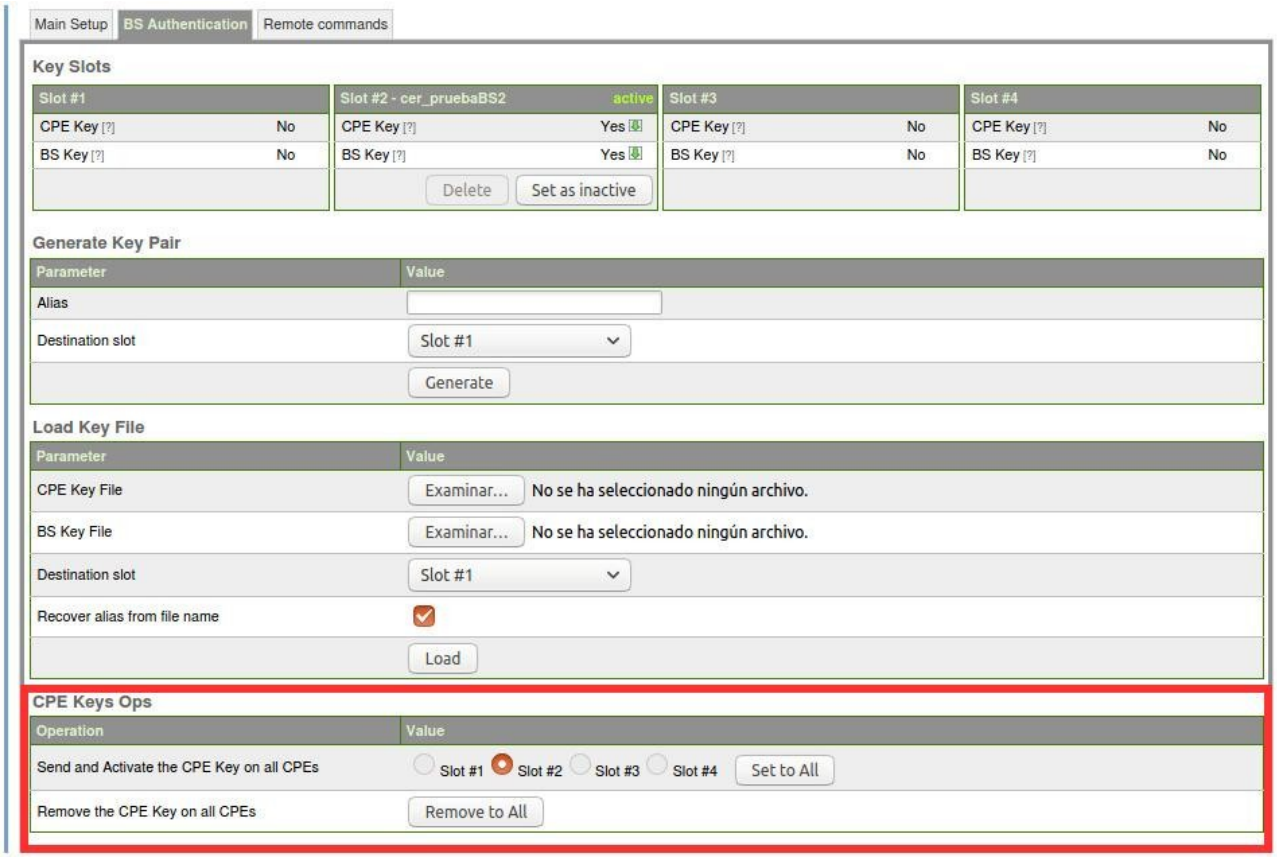
3.2 Dragonfly SNMP tree

Dragonfly SNMP tree deprecated. Now CPE100, BS100 and LNK1100 use the same tree that has long been used for CPE200, CPE300, BS400 and BS800. Check the SNMP framework for your Albentia devices.

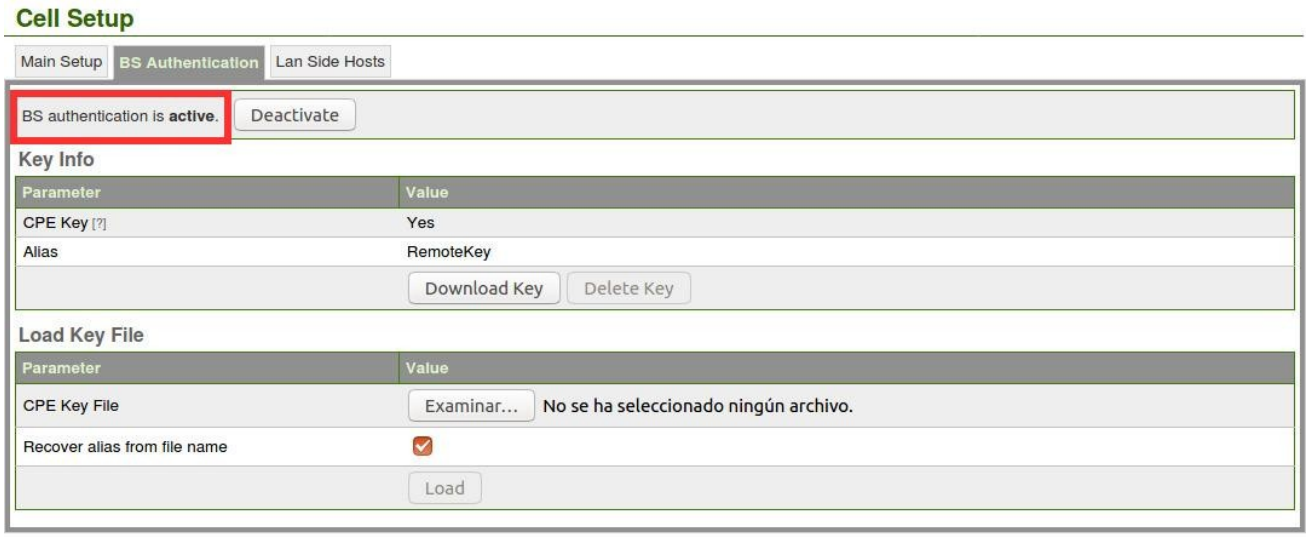
4. Appendix

4.1 BS Authentication

The picture below shows how to send a specific CPE key to all CPEs:

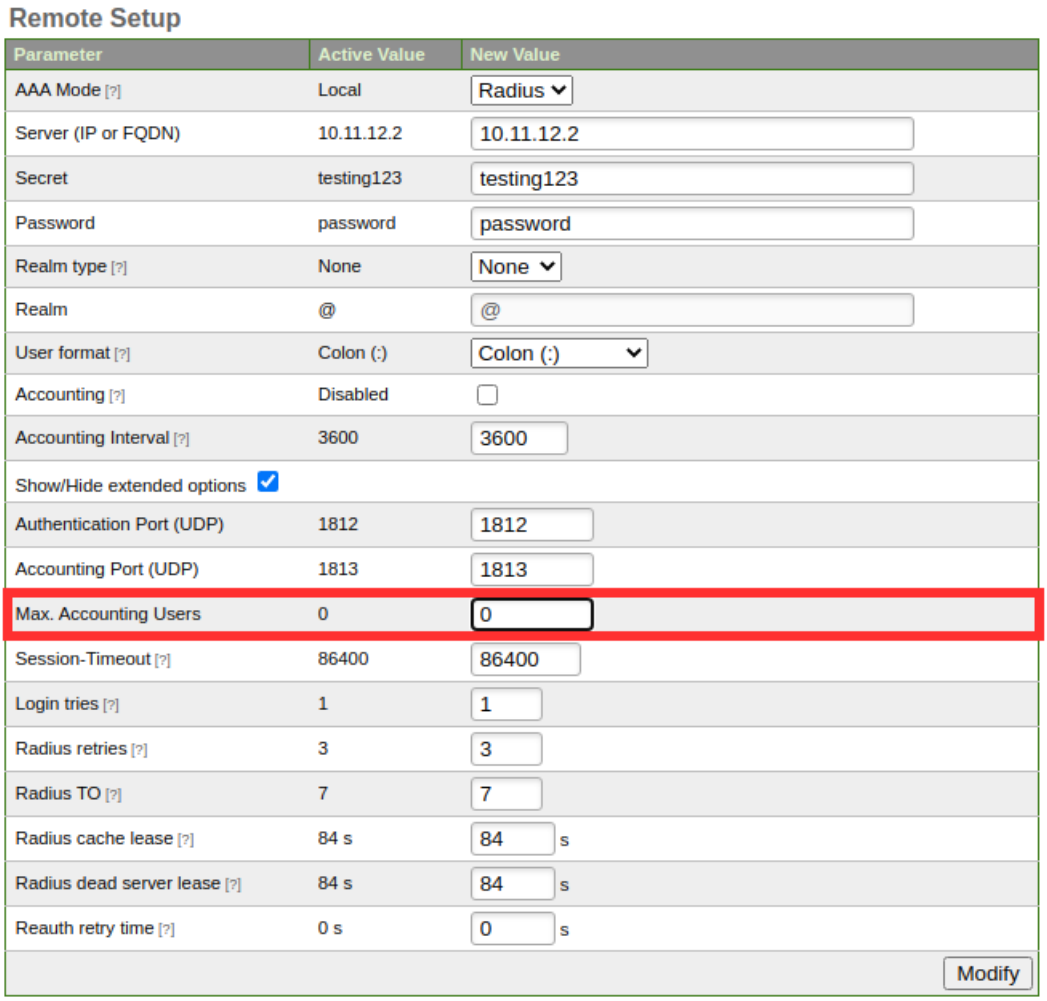


It is highly recommended to send the CPE Key after the corresponding BS Key slot is active to avoid losing access to the CPE. The “Set to All” button will generate a “RemoteKey” at CPE Cell Setup webpage and it will be set as active (see picture below).



4.2 Radius

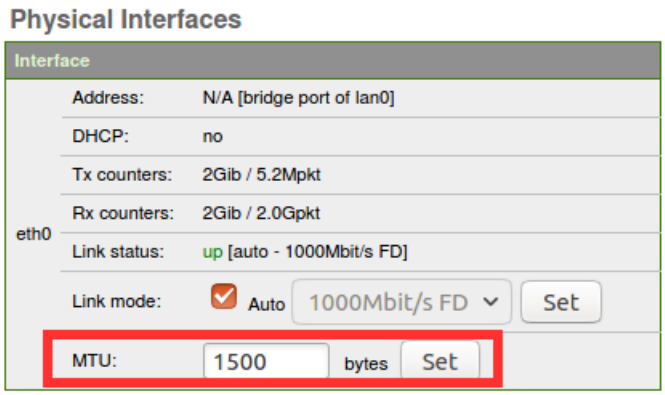
The “Max. Accounting Users” field is shown in the following image:



Once the “Accounting Interval” has been exceeded and if “Max. Accounting Users” field is set to a value higher than 0, accounting messages would be sent in groups of “Max. Accounting Users” value every 2 seconds until the message have sent for all the CPEs.

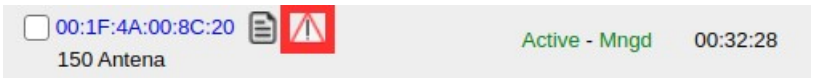
4.3 Ethernet interface MTU

The interface MTU can be modified on “Network Setup” webpage, on the "Physical Interfaces" table as can be seen in the red rectangle of the following image:



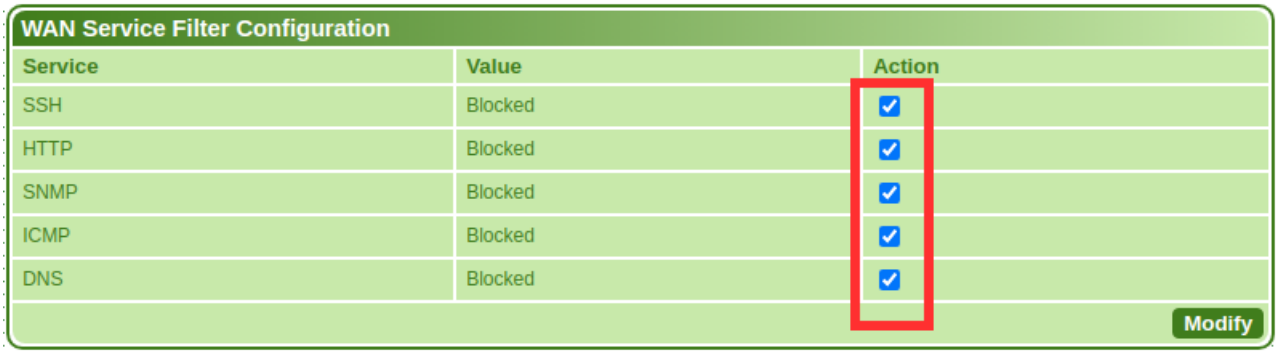
4.4 Security warning

As you can see inside the red square, there is a new warning icon beside each CPE in “Signal Stats” webpage when the CPE has some security issues.



4.5 Public WAN Service Filtering

This configuration table is located in the tab “WAN configuration” in the view “WAN” (see picture below).

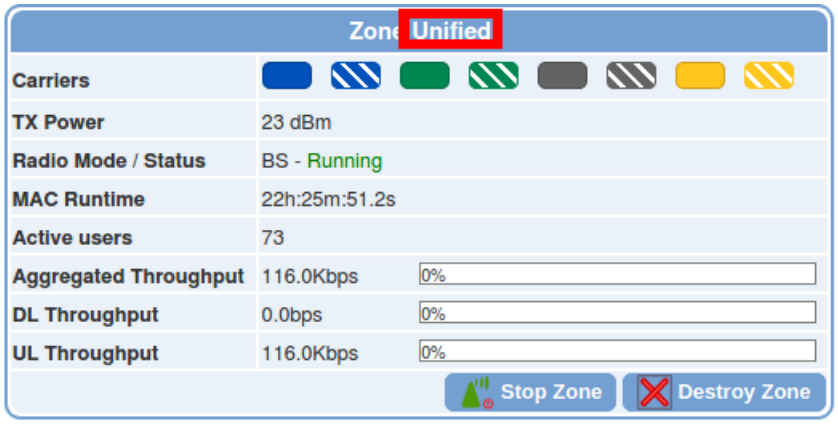


These filters will be enabled in the default or factory configurations. However, a device being updated to this version will leave this filter disabled to avoid losing accest to it. This will lead to a security warning.

This filter will only be effective if a public IP is set on the WAN interface.

4.6 REST API. Download signal cycle stats.

To download the signal cycle statistics, you just need to specify the zone id whose table is going to be downloaded. Zone id can be retreived from Zones web page, as seen in the red rectangle of the following picture:



To download the table, use the REST verb GET on /gui/stats.cgi/rest/signal_cycle_csv resource, encoding the zone id in the URL using the field zone_id, like this:

```
http://wmax:wmax@10.11.12.2/gui/stats.cgi/rest/signal_cycle_csv?zone_id=Unified
```

For example, to download the table of the zone "Unified" using wget, the command would be as follows:

```
wget "http://wmax:wmax@10.11.12.2/gui/stats.cgi/rest/signal_cycle_csv?zone_id=Unified" -O file.csv
```

The -O option redirects the http response content on the file provided, overwriting it.

The following table is an example of the http response message content:

```
MAC_ADDRESS,ALIAS,CARRIER,UL_MOD,UL_CINR,UL_INTERF,UL_RSSI,DL_MOD,DL_CINR,DL_INTERF,DL_RSSI
00:11:22:33:44:50,John,blue,16QAM-3/4,20,0,-68,16QAM-3/4,16,0,-68
00:11:22:33:44:50,John,blue 1,16QAM-3/4,19,0,-69,16QAM-1/2,15,0,-70
00:11:22:33:44:50,John,green,16QAM-3/4,20,0,-73,16QAM-3/4,20,0,-72
00:11:22:33:44:50,John,green 1,16QAM-3/4,18,0,-75,16QAM-3/4,17,0,-72
00:11:22:33:44:50,John,gray,16QAM-1/2,15,0,-80,16QAM-3/4,17,0,-75
00:11:22:33:44:50,John,gray 1,64QAM-2/3,21,0,-70,16QAM-3/4,19,0,-69
00:11:22:33:44:50,John,yellow,64QAM-3/4,24,0,-66,64QAM-2/3,22,0,-63
00:11:22:33:44:50,John,yellow 1,64QAM-3/4,23,0,-67,64QAM-2/3,22,0,-65
55:44:33:22:11:00,Peter,blue,16QAM-3/4,18,0,-75,16QAM-1/2,15,0,-78
55:44:33:22:11:00,Peter,blue 1,64QAM-3/4,22,0,-71,16QAM-1/2,15,0,-74
55:44:33:22:11:00,Peter,green,16QAM-1/2,15,0,-81,16QAM-1/2,15,0,-83
55:44:33:22:11:00,Peter,green 1,16QAM-3/4,17,0,-77,16QAM-1/2,15,0,-80
55:44:33:22:11:00,Peter,gray,64QAM-2/3,21,0,-76,16QAM-3/4,18,0,-75
55:44:33:22:11:00,Peter,gray 1,64QAM-2/3,20,0,-73,16QAM-3/4,18,0,-75
55:44:33:22:11:00,Peter,yellow,64QAM-2/3,22,0,-74,16QAM-3/4,19,0,-74
55:44:33:22:11:00,Peter,yellow 1,16QAM-3/4,18,0,-76,16QAM-3/4,18,0,-76
```

4.7 REST API. Disconnect CPE from BS.

To disconnect a CPE, you have to specify the MAC address of the CPE, which can be found in Signal Stats web. It is not needed to specify the zone identifier to which the CPE belongs.

To disconnect the CPE, use the REST verb GET on /gui/stats.cgi/rest/disconnect_user resource, encoding the MAC address in the URL using the field user_mac, like this:

```
http://wmax:wmax@10.11.12.2/gui/stats.cgi/rest/disconnect_user?user_mac=00:11:22:33:44:55
```

For example, to disconnect the CPE whose MAC address is "00:11:22:33:44:55" using wget, the command would be as follows:

```
wget "http://wmax:wmax@10.11.12.2/gui/stats.cgi/rest/
disconnect_user?user_mac=00:11:22:33:44:55"
```

4.8 Firewall

Port forwarding rules now allow specifying the source IP address of the packet. It is found in the CPE LAN webpage at Port Forwarding table. This image shows a configuration example:

Port forwarding rules can be enabled or disabled at the previous table with a power on/off button without deleting the rule: