

WESTERMO

CPX Software Release Notes GW1032/1042 Series

Release CPX-25.04.35.000

Hardware Models	GW1032; GW1042 Series
Revision	1.00.21
Approval status	Approved
Date:	18 November 2024
Brief description	Details the release of system software CPX-25.04.35.000 for GW1032/1042 Series

1	Revision history	3
2	Release statement	3
2.1	Firmware information	3
2.2	Hardware platforms	3
2.3	Important upgrade information	4
3	Security fixes	4
4	Security vulnerabilities	6
5	New features	6
6	Deprecated features	7
7	Known issues	8
8	Problems resolved	8
9	Appendix 1: New features history	10
9.1	25.04.19.000	10
9.2	25.03.43.011	13
9.3	25.03.43.005	14
9.4	25.03.43.000	14
9.5	25.03.03.000	15
9.6	25.02.14.033	16
9.7	25.02.14.027	16
9.8	25.02.14.016	16
9.9	25.02.14.010	16
9.10	25.01.40.028	19
10	Appendix 2: Problems resolved history	21
10.1	25.04.19.000	21
10.2	25.03.43.011	24
10.3	25.03.43.005	24
10.4	25.03.43.000	25
10.5	25.03.03.000	27
10.6	25.02.14.033	30
10.7	25.02.14.027	30
10.8	25.02.14.016	30
10.9	25.02.14.010	31
10.10	25.01.40.028	35

1 Revision history

Date	Revision	Description
02 November 2016	1.00.01	Release notes for CPX-19.00.02.000
15 May 2017	1.00.02	Release notes for CPX-19.00.04.000
20 October 2017	1.00.03	Release notes for CPX-19.00.75.000 RC 15 (limited)
24 November 2017	1.00.04	Release notes for CPX-19.00.75.000
19 January 2018	1.00.05	Release notes for CPX-19.00.75.001
09 April 2018	1.00.06	Release notes for CPX-19.00.77.000
09 August 2018	1.00.07	Release notes for CPX-19.00.78.000
20 February 2019	1.00.08	Release notes for CPX-19.00.80.000
07 October 2019	1.00.09	Release notes for CPX-19.00.86.000
18 May 2020	1.00.10	Release notes for CPX-19.00.91.000
05 March 2021	1.00.11	Release notes for CPX-25.01.40.028 (and bridge release CPX-19.01.40.028)
24 February 2022	1.00.12	Release notes for CPX-25.02.14.010
14 April 2022	1.00.13	Release notes for CPX-25.02.14.016
23 June 2022	1.00.14	Release notes for CPX-25.02.14.027
29 July 2022	1.00.15	Release notes for CPX-25.02.14.033
23 February 2023	1.00.16	Release notes for CPX-25.03.03.000
22 May 2023	1.00.17	Release notes for CPX-25.03.43.000
14 August 2023	1.00.18	Release notes for CPX-25.03.43.005
15 November 2023	1.00.19	Release notes for CPX-25.03.43.011
26 September 2024	1.00.20	Release notes for CPX-25.04.19.000
18 November 2024	1.00.21	Release notes for CPX-25.04.35.000

2 Release statement

CPX-25.04.35.000 has formally passed internal acceptance and regression testing and is available for general release on hardware platforms as stated below.

2.1 Firmware information

Filename	Size (bytes)	Build Date	Checksum (md5)
CPX-25.04.35.000.image	12,001,280	18/11/2024	d5d2c5234c920503294ff1e73c82149f

2.2 Hardware platforms

Hardware model	Details
----------------	---------

GW1032	Dual SIM 3G/CDMA450 wireless router with dual Ethernet and WiFi.
GW1042	Dual SIM LTE/3G/CDMA450 wireless router with dual Ethernet and WiFi.

2.3 Important upgrade information

Due to a unified versioning schema across all software families CPX firmware recently changed its MAJOR version number (previously **19**, now **25**).

Older firmware contains safety checks to ensure that the MAJOR firmware version matches before allowing firmware upgrade. More recent CPX firmware relaxes this check to allow seamless upgrade from CPX-19 to CPX-25 versions.

In order to accommodate this change, release CPX-25.01.40.028 is accompanied by a corresponding 'gateway' release CPX-19.01.40.028 (functionally identical to CPX-25.01.40.028).

Please follow the steps below for upgrade:

Running firmware	Upgrade procedure
< CPX-19.00.91.000	Upgrade to CPX-19.01.40.028 before to upgrade to CPX-25.01.40.028 or later
>= CPX-19.00.91.000	Upgrade directly to 25.01.40.028 or later

3 Security fixes

Firmware	Module	Description	Severity	Mantis
25.04.35.000	openVPN	Updated to version 2.5.11 Fixes CVE-2022-0547	Irritant	6238
	pam_tacplu s	Avoid potential freeing of non-address Fixes CVE-2020-27743 and CVE-2016-20014	Medium	8002
25.04.19.000	dnsmasq	Updated to version 2.90 Fixes CVE-2023-28450 and CVE-2022-0934	Medium	7796
	dropbear	Updated to 2022.85	Medium	7560
	frr	Fix CVE-2024-44070. FRRouting (FRR) does not check the actual remaining stream length before taking the TLV value.	Medium	7858
	jquery	Updated to version 3.7.1	Medium	7914
	net-snmpd	Updated to version 5.9.4 Fixes CVE-2022-44793; CVE-2020-15861; CVE-2020-15862; CVE-2019-20892; CVE-2015-8100; CVE-2018-18065; CVE-2018-18066; CVE-2014-2285	Medium	7306

	password	New HMAC password hashing algorithm which uses the HMAC functionality in the TPM as a means of hashing passwords (IEC62443-4-2)	Low	7155
	PPP	Updated to version 2.5.0	Low	4179
	System	Delete sensitive information from RAM and generate syslog message after use by luci, uhttpd, PAM, openVPN and strongswan (IEC62443-4-2)..	-	7164 7166 7167
		Perform image digital signature verification in virtual memory prior to loading to flash when using to Web UI and Activator.	Low	6721
	uhttpd	Support TLS v1.3 (IEC62443-4-2).	-	6854
25.03.43.005	console	Automatically log out console sessions after 30 mins if inactivity	Low	6884
25.03.23.000	telnetd	Remove telnetd support	Medium	
	password	Resetting password via web UI now requires input of current password	Low	5261
	SSH	Added grace period after console login failure to disrupt brute force attacks	Medium	5853
25.02.80.000	dnsmasq	Updated to 2.85 to fix CVE-2021-3448	Low	6041
	gpsd	Updated to 3.23.1	-	
	overlay	Implemented automatic overlay clean up to remove ad hoc modifications	-	5374
	snmpd	Application now runs with dedicated unique user and group id instead of root privileges	-	4695
25.02.14.000	arp-scan	Upgraded to version 1.9.7	-	
	iecd	COTP: fixed possible heap buffer overflow when handling message with invalid (zero) value in length field). Fixes CVE-2020-7054	-	5320
	iproute2	Upgrade to version 5.13.0	-	
	uClibc	Upgrade to version 0.9.33.2	-	
25.01.40.034	chrony	Upgraded to v3.5.1	-	
	dnsmasq	Upgraded to v2.84 to fix vulnerabilities in DNS response validation Fixes CVE-2020-25684; CVE-2020-25686	-	5618
25.01.40.028	chrony	Disable internet command sockets	-	4995

chrony			
dropbear			4964
iecd			4966
iosrzd			4968
openvpn	Applications now run with dedicated unique user and group id instead of root privileges		4970
rtud			4971
strongswan			4973
tservd			4974
xl2tpd			5003
Password	New configurable option to use SHA-512 for password hashing	-	5001
Reset	Config1 and config2 are now deleted when the router is reset to factory config using the reset button press	-	4996
tservd	TLS support for TCP server and TCP client mode	-	

4 Security vulnerabilities

Module	Short Description	Severity	Mantis
bgpd	Vulnerabilities affecting current version of bgpd CVE-2016-1245	Low	5808
openssl	Vulnerabilities affecting current version of openssl CVE-2022-1292, CVE-2022-2097, CVE-2022-4304, CVE-2022-4450, CVE-2023-0215, CVE-2023-0286, CVE-2023-0464, CVE-2023-0465, CVE-2023-0466, CVE-2023-2650, CVE-2023-3817, CVE-2023-4807, CVE-2023-5678	Medium	7301

5 New features

Event System						
VA Event System now supports firewall discard event						
Event System firewall discard	<u>Class</u>	<u>Id</u>	<u>Name</u>	<u>Severity</u>	<u>Event Template</u>	7769
	Firewall	2	DiscardZone	warning	Rule %p1 triggered: %p6 from %p4:%p7(%p2) to %p5:%p8(%p3)	
Firewall						

Firewall discard event forwarding	New option to support raising an event for rejected/dropped traffic in a firewall zone for onward forwarding to an event system target (snmp, syslog, etc)			7769
	The packet/event rate will be limited to 10/min by default. Use the <code>log_limit</code> option to change the default packet rate limit if required.			
	Package	Section	Options	
	firewall	zone	discard_event	
Mobile				
PRI display	Added PRI to mobile stats for Sierra Wireless modules <code>cli: vam -a</code>			7440
SIM7070E diagnostic port	Added support for SIMCOM7070E diagnostic port			7979
Monitor inventory				
EID Inventory	Support for inventory collection of SIM EID information			8030
PPP				
BCP support	Added support for Bridge Control Protocol for bridging Ethernet packets through a PPP link. Supported for PPP and L2TP protocols.			7935
	Package	Section	Options	
	network	interface	bcp; maclocal	
Scada				
Modbus TCP	Added TCP port number to route config			7977
	Package	Section	Options	
	iecd	port	modbus_tcp_server_port	
Optional DNP3 G40 status	Support optional reporting of DNP3 G40 analog output during integrity poll			7999
	Package	Section	Options	
	iecd	port	dnp3s_g40_exclude_intpoll	
SNMP				
EID OID	SIM EID now supported in VA-MODEM-MIB			8029
System				
Unified debug script	Support debug tool which gives a consistent and user-friendly method of enabling debug on various applications. Currently supported for Mobile, IPsec and Multiwan			4677
	<code>cli: debug mobile on</code>			
	<code>cli: debug ipsec on</code>			
	<code>cli: debug multiwan on</code>			

6 Deprecated features

Firmware	Package	Description	Mantis
----------	---------	-------------	--------

25.04.35.000	Web/IECD	Removed serial baud rates below 1200 from web UI configuration pages. These values are available via Modbus #1 Serial Speed	8000
25.04.19.000	mobile	Deprecated PPP mode for Quectel and Sierra Wireless modules	7337 7517
		Deprecated Quectel EC20 mobile module support	7337
	strongswan	<code>strongswan.connection.authby</code> deprecated. Now supported by new options <code>localauth</code> ; <code>localauth2</code> ; <code>remoteauth</code> ; <code>remoteauth2</code>	6294
25.02.14.010	WiFi	<code>wireless.wifi-device.type</code> option deprecated	
25.02.14.000	Analogue Relay	Removed analogue relay daemon (ard)	
	dnsmasq	Removed <code>dhcp.dnsmasq.nodaemon</code>	
25.01.40.028	Upnp	Removed <code>miniupnp</code>	
	Wget	Removed <code>wget busybox applet</code>	

7 Known issues

Module	Short Description	Mantis
Event System	Syslog messages only get sent to a single IP address	8046
Firewall	Firewall zone with name longer than 12 characters breaks NAT	7791
GPS	No GPS support for SIMCOM7070	
OSPF	When the remote connection (from a remote OSPF peer) is dropped, OSPF crashes intermittently.	5677
Strongswan	Strongswan memory footprint increases slowly with tunnel restart	5866
Syslog	No web UI support for syslog filter rules	3705
System	Misleading diagnostic message 'failed to kill...for device portWAN' generated on network restart or <code>ifup</code>	7817
Web	Web intermittently failing to load when WeConnect is active	7808
	Web UI crashes when option <code>ifname</code> is missing in network configuration	8050
Web/ Administration	Uploading Private Keys to TPM results in web UI error	7874
Web/IPsec	Unable to configure <code>strongswan.connection.disable_mobike</code> , <code>strongswan.connection.mobike_send_additional_self</code> or <code>strongswan.connection.disable_natt</code> via web UI	5437
Web/Management Users	Unable to configure management users via web UI	5503

8 Problems resolved

Module	Short Description	Mantis
--------	-------------------	--------

Data Usage	Fix data usage bringing down interface when monthly usage limit reached	7759
Event System	Fix missing interface names in VA event messages generated by the firewall using the <code>recent</code> option.	8037
GPS	Fix <code>gpspeek</code> location information	7980
HTTP Client	Fix chunk size addition when reporting download status to Activator when using Chunky Downloads that could result in download failure	8023
L2TP	Fix L2TP initialisation	8035
Mobile	Disable <code>va-mobile</code> and execute <code>AT+CFUN=0</code> before powering down SIMCOM7070 modem to avoid module not reinitialising on USB bus	7996
	Ensures signal strength and registration status information is refreshed as part of the check whether or not the radio module is registered with a PLMN and the signal strength is sufficient. Fixes connectivity issue when last reported signal strength was -113dBm or less.	7919
	Fix incorrect detection of registration status while in GPRS mode	7945
	Power cycle the SIMCOM7070E modem if it starts in EDL mode	8014
	Reset SIMCOM module authentication details to avoid using stored credentials when username/password not explicitly set in configuration	8013
Network	Fix link loss when changing from bridge to single port	7937
PPP	Fix option <code>record</code> support	8022
Roaming Manager	Ignore test operators in roaming scan	8001
Scada/IEC61850	Fix description in the IEC61850 Slave side data point for DO field	8019
Scada/Modbus	Fix DNP3S to Modbus conversion issues for <code>select operate</code>	7999
	Fixed bug in converting MODBUS HR register reads to DNP3S points (G30 and G40) mapped to same HR index	7999
System	Fix memory crash on GW1150 series under heavy load	4681
	Re-enable <code>nano</code> support	7998
	Suppress UCI error on <code>version -a</code> command if mobile module is not initialised	7984
Web/Interface	Fix network interface colours to reflect up/down status	6536
	Update interface pages to show firewall zones as colours	7988
Web/Real Time Graph	Only show UCI network interfaces on the Realtime Traffic screen	7946

9 Appendix 1: New features history

9.1 25.04.19.000

Console				
	Support new option for disabling the console port			
Console disable	Package	Section	Options	7802
	system	failsafe	console	
Interface				
	Include physical ports with eth-X interfaces in interface status			7900
Interface Status	Support wildcards on interface names to show all matches.			
	cli: ifstatus eth0 (matches only eth0)			7440
	cli: ifstatus eth* (matches all eth interfaces)			
Management Users				
User groups	Support new group configuration which contains a list of <code>allowed_pages</code> . A user can be assigned to multiple groups. This allows a user to be able to visit pages from their own <code>allowed_pages</code> as well as from any assigned groups			7158
	Package	Section	Options	
	management_user	user	groups	
		group	enabled; allowed_pages	
Mobile				
Airplane mode in backoff	Support new option to enter Airplane Mode during the interface back off period			7032
	Package	Section	Options	
	network	interface	airplane_mode_backoff	
LTE power saving mode	Support LTE PSM mode for SIMCom7070E mobile module			
	Package	Section	Options	7841
	mobile	mobile	sim1_enable_psm; sim2_enable_psm	
SMS security	Improvements to SMS queue processing and support new options for better control how SMS messages are handled			
	Package	Section	Options	3976
	mobile	mobile	sms_read_interval; sms_check_time; sms_past_margin; sms_future_margin	
SMS whitelisting	Support whitelisting commands allowed to be executable by SMS			
	Package	Section	Options	6931
	mobile	caller	allowed_commands	
Watchdog timeout behaviour	Support advanced configurable action [<code>log reset reboot</code>] to take when a watchdog timeout occurs for a mobile module. Currently only supported for QMI modules			5719
	Package	Section	Options	
	mobile	main	netdev_wd_action	

OpenVPN				
TPM support	Support OpenVPN keys in TPM. The existing key option should be configured to the TPM label for the OpenVPN key			7126
	Package	Section	Options	
	openvpn	openvpn	keytype; key '<TPM-label>'	
Multiwan				
Suppress static routes	New option to suppress all static routes for an interface when it transitions to failed state			7809
	Package	Section	Options	
	multiwan	interface	suppress_all_routes_on_fail	
Password Management				
Multi Factor Authentication	SSH and web UI now support Multi Factor Authentication using Google authenticator			5339
	Package	Section	Options	7152
	dropbear	dropbear	multi_factor_auth	7154
	luci	main	multi_factor_auth	
	system	pam_auth	type 'google'	
Password lifetime	Support password lifetime configuration for management users. Does not apply to root password			7156
	Package	Section	Options	
	management_user	user	max_passwd_age	
Password regex	Support configuring password regex rules. Applies to root password and management users password			7194
	Package	Section	Options	
	system	main	password_regex	
Password reuse	Support limiting password re-use of the last 10 management user passwords. Does not apply to root password			
PPP				
Adaptive LCP Echo	When enabled LCP echo will only be sent if no traffic is received on the interface. This avoids the situation where PPP is terminated on a congested PPP link because LCP echos are not received in time			4179
	Package	Section	Options	
	network	interface	adaptive_keepalive	
RADIUS				
NAS-Identifier option	Support new configuration option for NAS-Identifier with support for %serial and %hostname option values			7347
	Package	Section	Options	
	system	pam_auth	radius_nasid	
SCEP				
TPM support	SCEP now supports key pair management in TPM			7125
	Package	Section	Options	
	strongswan	scep_cert	use_tpm; key_label	

SNMP			
Multiwan state OID	Added ifMultiwanState to VA-UCI-MIB		6915
Sim detection OID	Added SimIn to VA-MODEM-MIB		6915
SSH			
Limit concurrent users	Support new option for limiting concurrent authenticated user sessions (Mantis: 7160)		7160
	Package	Section	
	dropbear	dropbear	MaxConnections
Strongswan			
IKEv2 Multiple subnet support	Support multiple subnets for ikev2		6026
	Package	Section	
	strongswan	connection	locallanextra; remotelanextra
TPM support	Support strongswan keys in TPM. TPM keys are supported via the <code>token</code> secret type. In this case the value of the secret specifies the label of the key to use.		4460
	Package	Section	
	strongswan	secret	secrettype 'token'; secret '<TPM-label>'
VRF support	New option to bind an IPSec tunnel to a VRF. Note: this is only supported for IPv4 ESP tunnel mode.		4307
	Package	Section	
	strongswan	general	vrf
XAuth EAP support	Added support for xauth-eap and eap-radius authentication methods		6294
	Package	Section	
	strongswan	connection	localauth; localauth2; remoteauth; remoteauth2
		radius_server	enabled; address; secret; auth_port; acct_port
System			
Busybox	Enable support for <code>who</code> command		6788
Change Log	Change log now records active image number and version on reboot		7728
Port mirroring	Support software port mirroring. All ingress and egress traffic on an interface can be mirrored to an alternate interface		7696
	Package	Section	
	network	interface	mirrorto
Syslog	New warning message generated to local and remote syslog when any entries stored locally are discarded due to log rotation (Mantis: 7162)		7162

TPM hashed password	Support new HMAC hashing algorithm for hardware with a TPM. This allows the user to use the HMAC functionality in the TPM as a means of hashing passwords. This is opposed to existing md5 or sha512 hashes and prevents a malicious actor from decrypting as the hashes now require the TPM hardware to be calculated	7155																				
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>system</td> <td>system</td> <td>password_hash_algo 'hmac'</td> </tr> </tbody> </table>	Package	Section	Options	system	system	password_hash_algo 'hmac'															
Package	Section	Options																				
system	system	password_hash_algo 'hmac'																				
VA Events																						
	VA Event System now supports <code>ieee8021x</code> event class and events																					
802.1x events	<table border="1"> <thead> <tr> <th>Id</th> <th>Name</th> <th>Severity</th> <th>Event Template</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>IEEE8021xRestrictingIf</td> <td>notice</td> <td>IEEE8021x restricting on %{p1}</td> </tr> <tr> <td>2</td> <td>IEEE8021xAllowingAllonIf</td> <td>notice</td> <td>IEEE8021x allowing all on %{p1}</td> </tr> <tr> <td>3</td> <td>IEEE8021xAllowingMAConIf</td> <td>notice</td> <td>IEEE8021x allowing %{p1} on %{p2}</td> </tr> <tr> <td>4</td> <td>IEEE8021xBlockingMAConIf</td> <td>notice</td> <td>IEEE8021x blocking %{p1} on %{p2}</td> </tr> </tbody> </table>	Id	Name	Severity	Event Template	1	IEEE8021xRestrictingIf	notice	IEEE8021x restricting on %{p1}	2	IEEE8021xAllowingAllonIf	notice	IEEE8021x allowing all on %{p1}	3	IEEE8021xAllowingMAConIf	notice	IEEE8021x allowing %{p1} on %{p2}	4	IEEE8021xBlockingMAConIf	notice	IEEE8021x blocking %{p1} on %{p2}	6528
Id	Name	Severity	Event Template																			
1	IEEE8021xRestrictingIf	notice	IEEE8021x restricting on %{p1}																			
2	IEEE8021xAllowingAllonIf	notice	IEEE8021x allowing all on %{p1}																			
3	IEEE8021xAllowingMAConIf	notice	IEEE8021x allowing %{p1} on %{p2}																			
4	IEEE8021xBlockingMAConIf	notice	IEEE8021x blocking %{p1} on %{p2}																			
Web UI																						
Disable web UI	Added new option to disable web UI	7068																				
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>uhttpd</td> <td>main</td> <td>webui_enabled</td> </tr> </tbody> </table>	Package	Section	Options	uhttpd	main	webui_enabled															
Package	Section	Options																				
uhttpd	main	webui_enabled																				
Limit concurrent users	Support new option for limiting concurrent user sessions	7161																				
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>luci</td> <td>sauth</td> <td>sessionlimit</td> </tr> </tbody> </table>	Package	Section	Options	luci	sauth	sessionlimit															
Package	Section	Options																				
luci	sauth	sessionlimit																				
LTE band display	Show supported LTE bands for enable/disable via Web UI. <code>web: services->mobile manager->lte</code>																					
Session control	Added utility to list and terminate web sessions (Mantis: 7159) <code>web: system->sessions</code> <code>cli: sessionctl</code>	7159																				
Web UI theme	New restructured web UI with navigation links on left side frame.																					
WeConnect																						
DCU VPN Concentrator Support	Added support for DCU VPN Concentrator to WeConnect																					

9.2 25.03.43.011

No new features

9.3 25.03.43.005

Certificates							
Check both TPM and flash for certificate key	<p>If the key cannot be found in the location specified in the configuration file, the router will automatically check an alternate location using the following methodology (Mantis: 6820).</p> <ul style="list-style-type: none"> When configured for PEM key and key cannot be found at the configured location, the router will try to use a TPM key with name corresponding to base file name (/etc/uhttpd.key -> "uhttpd"). When configured for TPM key and key cannot be found in the TPM, the router will try to use file "/etc/<tpm label>.key" 						
Mobile							
FOTA support for Unitac modules	Support FOTA upgrade for Unitac modules						
Neighbour cell information	<p>Added display of neighbouring cell information. Currently only supported on Unitac ML620/660 and Quectel EC200x series</p> <pre>cli: vam -n</pre>						
Multiwan							
Multiwan upper retry limit for roaming interfaces	<p>For 3G roaming connections, and connections with <code>retry_on_first_fail</code> enabled, to avoid getting stuck on one SIM, a new multiwan configuration parameter defines the maximum number of seconds to stay with an interface after its first failure before proceeding. (Mantis: 6975)</p> <table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>multiwan</td> <td>interface</td> <td>retry_connection_max_sec (def: multiwan.interface.ifup_timeout_sec)</td> </tr> </tbody> </table>	Package	Section	Options	multiwan	interface	retry_connection_max_sec (def: multiwan.interface.ifup_timeout_sec)
Package	Section	Options					
multiwan	interface	retry_connection_max_sec (def: multiwan.interface.ifup_timeout_sec)					
TPM							
List TPM keys	<p>Support new diagnostic command to list TPM keys</p> <pre>cli: tpm-cli listkeys</pre>						

9.4 25.03.43.000

GPS	
GPS MIB support	Added support for VA-GNSS-MIB for retrieval of GPS values
Network	
Dummy interface support	<p>Added support for dummy interfaces. Dummy interfaces are real kernel interfaces (unlike alias interfaces) and support all the configuration options of a static interface. Dummy interfaces are useful in combination with VRFs as they can be isolated from general routing.</p>

Ignore carrier state option	Support new option for static protocol interfaces to ignore carrier state changes. This allows interfaces to stay permanently up even when physical connection is not present (Mantis: 6739)									
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>network</td> <td>interface</td> <td>ignore_carrier_state (def: no)</td> </tr> </tbody> </table>	Package	Section	Options	network	interface	ignore_carrier_state (def: no)			
Package	Section	Options								
network	interface	ignore_carrier_state (def: no)								
Roaming Manager										
	Added new connection retry options for Roaming Manager feature									
Roaming Manager connection retry options	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>network</td> <td>interface</td> <td>roaming_link_success_time (def: 600 secs); roaming_prefer_best_operator (def: no); roaming_scan_inheritance (def: no)</td> </tr> <tr> <td>multiwan</td> <td>interface</td> <td>retry_on_first_fail (def: no)</td> </tr> </tbody> </table>	Package	Section	Options	network	interface	roaming_link_success_time (def: 600 secs); roaming_prefer_best_operator (def: no); roaming_scan_inheritance (def: no)	multiwan	interface	retry_on_first_fail (def: no)
Package	Section	Options								
network	interface	roaming_link_success_time (def: 600 secs); roaming_prefer_best_operator (def: no); roaming_scan_inheritance (def: no)								
multiwan	interface	retry_on_first_fail (def: no)								
System										
	Added support for time update via GNSS. Note: Router requires GNSS capabilities and GNSS is enabled (Mantis: 6229)									
GNSS time synchronisation	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>system</td> <td>timeserver</td> <td>gnss_clock_source_enabled (def: no)</td> </tr> </tbody> </table>	Package	Section	Options	system	timeserver	gnss_clock_source_enabled (def: no)			
Package	Section	Options								
system	timeserver	gnss_clock_source_enabled (def: no)								

9.5 25.03.03.000

BGP	
BGP MIB support	Added BGP-4-MIB support so BGP information can beretrieved via SNMP (Mantis: 6347)
GPS	
GPS diagnostics	Added new <code>gps</code> diagnostics command
Mobile	
EID retrieval	Support EID retrieval for Quectel, Simcom, Sierra Wireless, Huawei and Telit mobile modules. EID information on the SIMs can be displayed using <code>vam -a</code> command (Mantis: 6236)
FOTA upgrade via CURL	FOTA upgrade can now use CURL to download a firmware image from remote location
FOTA upgrade	Support Quectel FOTA upgrade via locally stored file
SNMP	
LAPB MIB support	Added support for Virtual Access VA-LAPB-STATS-MIB which provides level 2 statistics for the serial interface (Mantis: 4695).
Modem firmware version MIB support	Virtual Access VA-MODEM-MIB modemTable now supports <code>modemFirmwareVersion</code> and <code>modemGsmLtePci</code> (Mantis: 5912)
VA roaming manager MIB support	Added MIB support for VA Roaming Manager (<code>vaRoamingManagerModule</code>) feature to VA-MODEM-MIB (Mantis: 5842)

Monitor			
LTE band and cell diagnostics	Added support for LTE band and cell information in ISAD bins (Mantis 6007)		
VRF support for monitor keepalive	Added support for configuration of VRF domain for Monitor keepalive traps (Mantis: 5983)		
	Package	Section	Options
	monitor	keepalive	vrf
Multiwan			
Multiwan interface scanning timeout	New multiwan config parameter to extend <code>ifup</code> timeout when a mobile roaming operator scan is active. Used in conjunction with VA Roaming Manager feature, this parameter is added to the normal <code>ifup_timeout_sec</code> used for <code>ifup</code> operations whenever the <code>ifup</code> occurs during a 3G operator background scan, or the <code>ifup</code> itself triggers such a scan, on the modem being used for the current interface.		
	Package	Section	Options
	multiwan	interface	<code>ifup_scanning_timeout_sec</code> (def: 480 secs)

9.6 25.02.14.033

No new features

9.7 25.02.14.027

Mobile	
EID retrieval	Support EID retrieval for SIMCOM7070E (Mantis: 6236)

9.8 25.02.14.016

No new features

9.9 25.02.14.010

BGP			
BGP MIB eBGP multihop and source peer configuration support	Support for allowing multihop ebgp neighbourhood for the peer and specifying source address for communicating with the peer. Option source can be either ip4 address or UCI interface name (Mantis: 5609)		
	Package	Section	Options
	bgp	peer	ebgp_multihop; source
Peer password configuration	Support for BGP peer password configuration		
	Package	Section	Options
	bgp	peer	password

Inbound and outbound route map	Support for BGP inbound and outbound route map configuration. Previously it was only possible to specify either inbound or outbound route map.						
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>bgp</td> <td>peer</td> <td>inbound_route_map; outbound_route_map</td> </tr> </tbody> </table>	Package	Section	Options	bgp	peer	inbound_route_map; outbound_route_map
Package	Section	Options					
bgp	peer	inbound_route_map; outbound_route_map					
Cwatch							
Ping health check	Cwatch now supports ping as a monitoring method. Previously only supported receive byte count						
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>cwatch</td> <td>watch</td> <td>method; icmp_hosts; icmp_attempts; icmp_timeout; icmp_size; icmp_ttl; icmp_reliability</td> </tr> </tbody> </table>	Package	Section	Options	cwatch	watch	method; icmp_hosts; icmp_attempts; icmp_timeout; icmp_size; icmp_ttl; icmp_reliability
Package	Section	Options					
cwatch	watch	method; icmp_hosts; icmp_attempts; icmp_timeout; icmp_size; icmp_ttl; icmp_reliability					
Event System							
VRF	Support for events for syslog and email targets to be isolated from general routing using VRF						
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>va_eventd</td> <td>target</td> <td>vrf</td> </tr> </tbody> </table>	Package	Section	Options	va_eventd	target	vrf
Package	Section	Options					
va_eventd	target	vrf					
GRE							
GRE keepalive	Support for automatic responding to received GRE keepalive messages. Added multiwan support for GRE keepalive tests which sends a single GRE keepalive message and waits for either reply or timeout. Only relevant for GRE interfaces.						
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>multiwan</td> <td>interface</td> <td>gre_ka_enabled; gre_ka_timeout_sec</td> </tr> </tbody> </table>	Package	Section	Options	multiwan	interface	gre_ka_enabled; gre_ka_timeout_sec
Package	Section	Options					
multiwan	interface	gre_ka_enabled; gre_ka_timeout_sec					
VRF support for monitor keepalive	Added support for configuration of VRF domain for Monitor keepalive traps (Mantis: 5983)						
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>monitor</td> <td>keepalive</td> <td>vrf</td> </tr> </tbody> </table>	Package	Section	Options	monitor	keepalive	vrf
Package	Section	Options					
monitor	keepalive	vrf					
Interface							
Interface status logging	<p>New feature for historical interface status logging for each configured interface for defined periods - day/week/month. Log can then be used to determine the reliability of an interface over time. Feature is enabled by setting <code>system.main.audit_interface</code>. When enabled, interface up/down events are logged to <code>root/interface_log[*]</code>.</p> <p>Log can be displayed via the web UI at <code>status->interface log</code>, or using the command <code>iflog [up down]</code>.</p>						
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>system</td> <td>main</td> <td>audit_interface; audit_interface_log_file; audit_interface_log_size; audit_interface_log_count</td> </tr> </tbody> </table>	Package	Section	Options	system	main	audit_interface; audit_interface_log_file; audit_interface_log_size; audit_interface_log_count
Package	Section	Options					
system	main	audit_interface; audit_interface_log_file; audit_interface_log_size; audit_interface_log_count					
Routing table display	Enhanced display of routing table via web UI at <code>Status->Active Routes</code> to include Protocol and VRF (Mantis: 5823)						
Mobile							

Roaming SIM enhancements

New feature to identify all available roaming operators visible on the SIM card assigned to a 3G interface, and dynamically select the most appropriate one whenever the 3G interface attempts to connect, rather than sticking with a single operator.

Unlike the existing roaming support (configured via `/etc/config/mobile` roaming section) which creates a dynamic UCI interface for each discovered mobile operator, this new support will use a single UCI interface and will dynamically decide which physical operator to connect to at any time. This decision may be based on criteria such as signal strength, ping response time, and other metrics.

Package	Section	Options
network	interface	roaming_enabled; roaming_operator_exclude; roaming_ordering; roaming_ordering_function; roaming_ping_count; roaming_ping_hosts; roaming_ping_interval_ms; roaming_ping_timeout_ms; roaming_ping_size; roaming_full_scan_timer; roaming_allow_scan_inheritance; roaming_full_scan_window_start; roaming_full_scan_window_end

NTP

Custom chrony configuration

Support for configuration of custom chrony options through web UI at `system->system->time synchronisation->Custom Chrony configuration options`

Package	Section	Options
system	timeserver	list text

Local clock drift factor recording

Hidden configuration option `system.timeserver.driftfile` now defaults to `/root/chrony/chrony.drift` to record local clock drift factor and reduce synchronisation time on subsequent boots

Strongswan

CEP certificate debug level

The SCEP client natively supports debug options with 4 levels levels - 0,1,2,3 and 4. These can now be configured using new config option `debug_level`. Set to 0 to disable. (Mantis 5881)

Package	Section	Options
strongswan	scep_cert	debug_level

SCEP certificate user option

Added new config option `user`, which is the high-level concept of the user of the certificate. This user gets read access via its group. The owner is root, the group is the user. The user is expected to be a member of its group. (Mantis: 5908/5913)

Package	Section	Options
strongswan	scep_cert	user (def: strongswan)

WeConnect

WeConnect support WeConnect allows secure remote access to both the network behind the devices and the devices themselves. WeConnect solves the complexity of managing VPNs over the Internet. With WeConnect users can easily and securely connect to any IP-device on the network using their normal PC, smartphone or tablet.

Contact your local Westermo reseller or visit weconnect.westermo.com for further information.

Package	Section	Options
weconnect	weconnect	weaddress; weint_name; confver; wetoken; weotp; rip_int

9.1025.01.40.028

Ethernet

Software watchdog New automatic watchdog script to check switch MIB counters and reset if not incrementing on GW1042 hardware.

Mobile

Mobile backoff configuration New feature to support configuration of backoff and reconnection timers on mobile interfaces. This allows for configuration for the number of `ifup` failures before backoff and the amount of time to wait before connection retry. The connection retry timer can be configured to incrementally increase.

Package	Section	Options
network	interface	failures_to_backoff; backoffminutes

Mobile custom initialisation string New feature for ability to pass custom AT commands to the mobile module at mobile startup and SIM switch. The custom AT commands allow for independent configuration for each SIM:

- The initialisation string
- The response to wait for
- The timeout to wait for the response

Package	Section	Options
mobile	main	sim1_custom_pre_init_at_string; sim2_custom_pre_init_at_string; sim1_custom_pre_init_at_string_timeout; sim2_custom_pre_init_at_string_timeout; sim1_custom_post_init_at_string; sim2_custom_post_init_at_string; sim1_custom_post_init_at_string_timeout; sim2_custom_post_init_at_string_timeout

Reset LOCI file content on SIM on startup New option `sim[1|2]_loci_file_reset_enabled` when enabled will lead to a fresh operator search at radio module startup instead of the module trying to register with the last used network again

Package	Section	Options
mobile	main	sim1_loci_file_reset_enabled; sim2_loci_file_reset_enabled

Roaming templates multiwan group	New option for configuration of multiwan exclusive group. Previously this was hard configured to 3g.								
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>mobile</td> <td>roaming_template</td> <td>multiwan_exclusive_group</td> </tr> </tbody> </table>	Package	Section	Options	mobile	roaming_template	multiwan_exclusive_group		
Package	Section	Options							
mobile	roaming_template	multiwan_exclusive_group							
SNMP									
CDMA 450 MIB support	Added CDMA 450 MIB support to vaModem.mib for EC/IO, DRC and PN-Code								
	<table border="1"> <thead> <tr> <th>MIB</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>vaModem.29</td> <td>EC/IO</td> </tr> <tr> <td>vaModem.30</td> <td>DRC</td> </tr> <tr> <td>vaModem.31</td> <td>PN-Code</td> </tr> </tbody> </table>	MIB	Description	vaModem.29	EC/IO	vaModem.30	DRC	vaModem.31	PN-Code
MIB	Description								
vaModem.29	EC/IO								
vaModem.30	DRC								
vaModem.31	PN-Code								
LTE band MIB support	Added LTE band to vaModem.mib								
	<table border="1"> <thead> <tr> <th>MIB</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>vaModem.22</td> <td>LTE band</td> </tr> </tbody> </table>	MIB	Description	vaModem.22	LTE band				
MIB	Description								
vaModem.22	LTE band								
Strongswan									
Interoperability improvements	New options added to strongswan configuration for better interoperability with 3rd party vendor peers.								
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>strongswan</td> <td>connection</td> <td>disable_mobike; mobike_send_additional_self; disable_natt</td> </tr> </tbody> </table>	Package	Section	Options	strongswan	connection	disable_mobike; mobike_send_additional_self; disable_natt		
Package	Section	Options							
strongswan	connection	disable_mobike; mobike_send_additional_self; disable_natt							
SCEP CA fingerprint validation	Added a new option <code>fingerprint</code> which specifies a fingerprint that can be matched against the fingerprint (MD5 or SHA1) of a CA certificate during authentication								
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>strongswan</td> <td>scep_cert</td> <td>fingerprint</td> </tr> </tbody> </table>	Package	Section	Options	strongswan	scep_cert	fingerprint		
Package	Section	Options							
strongswan	scep_cert	fingerprint							
System									
Password hash	Support for configurable password hashing algorithm using SHA-512 algorithm. Note: if using SHA-512 password hash then firmware cannot be rolled back to a version that does not support SHA-512 ie prior to this release.								
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>system</td> <td>main</td> <td>passwd_hash_algo</td> </tr> </tbody> </table>	Package	Section	Options	system	main	passwd_hash_algo		
Package	Section	Options							
system	main	passwd_hash_algo							
Reset	Config1 and config2 configuration files are now deleted when router is reset to factory config using the reset button press								

Note: New features prior to CPX-25.01.43.028 have been archived

10 Appendix 2: Problems resolved history

10.125.04.19.000

Module	Short Description	Mantis
802.1x	Fix 802.1x authentication	4290
	Fix 802.1x restart after <code>ifup</code> or cable unplug/plug	7464
Activator	Fix issue with multiple downloads from different services (active update, inventory, audit) running simultaneously	7530
Cwatch	Fix issue with multiple downloads from different services (active update, inventory, audit) running simultaneously	6321
Cwatch	Change Cwatch 'Interface does exist' message to NOTICE severity	7078
DHCP	Fix corrupted IA address when sending OPTION_IA_N	7424
Ethernet	Fix Ethernet ports intermittently reflecting incorrect state when bridging	7795
Event System	Correctly handle double quotes in event target <code>cmd_template</code> value	5736
	Fix <code>va_event</code> syslog messages showing with no space between date and serial number	7513
Firewall	Support <code>vrrp</code> as valid protocol option	7906
GRE	Validate configured keys are unique	6769
HTTP Client	Include all CPUs in interrupt count value in hdl request field <code>irq_cnt</code>	6228
Mobile	Added error messages for failed connection attempts for Quectel modules in Ethernet mode	7899
	Allow backslash <code>\</code> in username and password	7360
	Custom interface DNS now supported by Unitac modules	7192
	Ensure PDP context is deactivated before attempting to establish connection to avoid issue with connection attempt	7168
	Fix band selection for SIMCom7070E module	7833
	Fix EID detection when APDU contains the tag and length	7522
	Fix operator scan	7693
	Fix Quectel registration status poller	7484
	Fix Unitac module FOTA upgrade on GW6650V and Merlin4700	7761
	Fix <code>va_mobile</code> failing to start if LTE band list is empty	7495
	Fixed network status constantly changing textual description (LTE/LTE-M) for used radio technology	7340
	Fixes to ensure the manual network operator selection is executed in the right order	7797
	Improve behaviour on network down for QMI connections to ensure reconnection after network outage	6325
	Improve the handling of +CREG responses so that it also handles CREG mode 2	7880
	LTE band locking configuration option <code>simX_lte_bands</code> now supports space separated bands	
Log a warning that GNSS is not supported for SIMCom7070E mobile module	7822	

	<code>sendsms</code> command now handles '+' at the beginning of international numbers	
	Unitac modules now use <code>wwan0</code> interface rather than <code>eth0</code>	6899
Multiwan	Produce warning for interfaces that do not exist	7857
Network	Add interface name and state for aliases to <code>network_status</code>	6716
	Fix dependant interfaces starting correctly on a network restart	7598
	<code>ifup/ifdown</code> now correctly validate the UCI interface name before execution	6276
	Remove the minimum IPv6 fragment size check	7320
		7324
		7325
		7326
OpenVPN	Allow <code>tun</code> or <code>tap</code> setting to create interfaces correctly.	7114
	Don't create new <code>linux</code> and <code>uci</code> interface on <code>openvpn</code> restart	7735
	OpenVPN interfaces are no longer deleted on <code>ifdown/network</code> restart event	7871
PPPoE	Fix PPPoE interface on an Ethernet port not automatically starting on boot	7924
	When PPPoE link is on a VLAN, it is no longer necessary to configure a dummy UCI interface for the underlying device in order for the VLAN to be created	7924
SCEP	Fix certificate expiration date calculation	7572
	SCEP ATQ time now synchronised with NTP	7083
SNMP	Fix UCI MIB <code>ifName</code> truncation	6981
	SNMP <code>engineID</code> now has fixed value that persists through reboot	7355
		7358
Strongswan	General improvements to memory usage	
Syslog	Fix <code>syslog</code> to use local time instead of UTC	7240
System	Adds the ability to define a <code>COMMENT</code> environment variable when invoking any process for display by <code>ps</code> command	7020
	Fix minimum <code>machtype</code> firmware version checking	7717
		7722
		7714
	Fix misleading 'cannot find device' messages on network restart or <code>ifup</code>	7798
	Panic log now contains timestamp on crash events	5608
	Replace invalid spaces in hostnames with '-' at run time	7829
TACACS	Fix IPv6 support	6620
TPM	Fix error message when <code>tpm-cli flush</code> command is executed twice in a row	6010
VA Event System	Fix buffer overflow crash and add new internal warning event upon event buffer overflow	7176
		7163
VRRP	Allow multiple groups in <code>vrrp status</code> command	7246
Web	ADSL configuration options no longer displayed when not supported on the hardware	6919

	Fix issue socket closing before HTTP data is complete which can result in UI not displaying correctly	6738 7752
	Fix reboot via web UI	7574
	Prevent capitalisation of configuration section names	7856
Web/ Interfaces	Ensure interface names are not automatically capitalized on the web UI	7678
	Remove PPTP protocol from available interface protocols	7354
Web/ Multiwan	Support <code>multiwan.interface.state_transition_hook</code> configuration via the web UI	5433
Web/ OpenVPN	Implement dependency between <code>local</code> and <code>nobind</code> option to avoid OpenVPN failing to start when both enabled in config	6819
Web/ WeConnect	Added support for DCU VPN Concentrator configuration options	
Web/802.1x	802.1x web UI enhancements; add file upload for certs and keys; Only display bridge interfaces as available 802.1x supplicant interfaces	6528
Web/Dynamic DNS	Restart DDNS when settings are changed from web UI	6491
Web/Firewall	Fix add and edit of firewall zones and rules via web UI	7573
	Support firewall rule <code>chain</code> option web: <code>security->firewall->traffic rules</code> cli: <code>firewall.rule.chain</code>	6898
Web/ Interfaces	Allow configuration of an MTU higher than 1500 bytes	7534
Web/Mobile	Added display of LTE bands supported by SIMCom7070E	7565
	Fix <code>va_mobile</code> restart on save & apply via web UI	7494
	Simplify mobile configuration using tabs via web UI	7707
Web/Mobile Manager	Show supported LTE bands for enable/disable via Web. web: <code>services->mobile manager->lte</code>	
Web/Realtime Graphs	Fix display of Realtime Graphs for mobile interfaces web: <code>status->Realtime Graphs</code>	7029
Web/Status	Only show hardware capable features	6966
	Only show multiwan status when enabled	6966
Web/System	Fix duplicate firewall package in configuration export	6904
	Support missing configuration options for SSH connection identity, verbose and VRF via web UI web: <code>security->ssh->Identity</code> cli: <code>dropbear.dropbear.Identity</code> web: <code>security->ssh->Verbose</code> cli: <code>dropbear.dropbear.verbose</code> web: <code>security->ssh->VRF</code> cli: <code>dropbear.dropbear.VRF</code>	6703
WeConnect	Add missing <code>ripd</code> and <code>openvpn</code> packages during provisioning	7687 7688

	Fix auto generated RIP configuration to ensure WeConnect correctly connects in a Ethernet bridge scenario and also reestablishes on disconnect.	7427 7539 7591
	Fix duplicate interface creation on connect	7547
	Fix support for WeConnect	6793 7218
	HTTPS support for DCU VPN Concentrator auto enrolment	6961
	Network status diagnostics now correctly show WeConnect interface IP address	7682
WiFi	Use serial number as base for WiFi interfaces	6256

10.225.03.43.011

Module	Short Description	Mantis
Certificates	Improve error reporting for common issues with HTTPS certificates	6987
Mobile	Added a module reboot after executing a factory reset of the Unitac module	
	Added an extra delay before issuing the AT command to switch the Unitac modules into ECM mode.	
	Ensure Unitac module comes back in ECM/VLAN mode after factory reset	
	Record Unitac AUX antenna values regardless of MIMO state	
	Use Unitac-specific AT commands <code>AT!UBAND</code> , <code>AT!UTEMP</code> and <code>AT!UREBOOT</code> instead of GCT commands	
TPM	Don't allow loading a new key if a key with the same label is already present	
Web/Event System	Support configuration of Event System Digital Input change event input number and value via web UI web: services->va event system->event filters->Input Number cli: va_eventd.forwarding.input_number web: services->va event system->event filters->Input Value cli: va_eventd.forwarding.value	6839
Web/OSPF	Support configuration of OSPF VRF via web UI web: network->ospf->global settings->VRF cli: ospfd.routing.vrf	6964
Web/Realtime Graphs	Fix web UI real time graphs for QMI mobile connections web: status->Realtime Graphs	7029

10.325.03.43.005

Module	Short Description	Mantis
Activator	Set model URL parameter to uimodel rather than machtype in updates to Activator	6761
CLI	Improve error message for <code>uci show xy</code> when <code>xy</code> does not exist	

CWATCH	Cwatch now ignores non-existing UCI network interfaces	6644
Cwatch	Fix cwatch using cached interface values rather than current values which caused cwatch to intermittently miss state changes	6784
Ethernet	Fix Ethernet switch health check on GW1042 when a configured VPN policy matches health check	5758
Failsafe	Failsafe mode now uses SSH instead of telnet access	6663
Firewall	Insert the <code>MARK</code> configuration rule before the <code>redirect</code> rules in the firewall table	5405
LED	Fix Ethernet port A green LED not illuminating on GW1042 series	4511
Mobile	Add MTU detection for Unitac modules	
	Ensure MTU does not exceed 1500 bytes on QMI links	6567
	Ensure Quectel EC25/EG25 modules use GSM format for SMS messages	
	Fix crash when <code>switch_sim</code> command is executed with no value	
	Fix interface name and type for Unitac modules on Merlin series	
	Fix missing LTE band information on older Unitac firmware	6630
	Fix signal strength detection on older Unitac modules	6805
	Prevent crash when handling SIMs with invalid ICCID	6635
	Prevent crash when no SIM slot specified for SIM switch command	
	Rename 'phone number' to 'MSISDN' in mobile stats	
	va-mobile no longer automatically changes GNSS configuration as this is now done in manufacturing	6659
Monitor	Fix Monitor Keepalive configuration changes taking effect immediately when changed from web UI or Activator	6650
NTP	Improvements to chrony operation for interface state changes	6631
PPP	Fix connection issue when two ppp links have similar UCI name	6654
Roaming Manager	Retry existing connection after routine disconnect when using Roaming Manager feature	
SNMP	Fix mibwalk error on <code>.1.3.6.1.4.1.2078.3.1.2.4.2</code> when walking VA-MODEM-MIB::roamingOp* series of values	6618
	Fix SNMP configuration using TCP protocol	5930
SSH	Fix SSH login via private and public key.	6425
TACACS	Fix ipv6 address support	6620
VRF	Fix DNAT behaviour for alias interface within VRF	6705
Web	Fix slow web SSL access when using keys from TPM	6734
	Sort web UI drop down headings	5909
Web/ IPsec	Fix error on saving of configuration general section	6281
Web/ Multiwan	Allow multiwan configuration via web UI when no multiwan config options exist in configuration file	
Web/ Network	Show colour codes for interface status in network overview	6536
Web/ OpenVPN	Automatically add and remove OpenVPN network interfaces	6296

Web/BGP	Fix BGP network option for IP address/subnet input rather than interface name web: network->bgp->global settings->Network	6619
Web/Firewall	Fix summary page showing rules with option enabled '1' in configuration file as disabled	6765
Web/HTTP Client	Support configuration of Http Client certificate key format web: services->http client->advanced->Certificate Key Format cli: httpclient->httpclient->KeyFormat	5792
Web/HTTP Server	Support configuration certificate keys in TPM web: services->http server->Certificate Key Format cli: uhttpd.uhttpd.keytype [PEM TPM]	6756
Web/IPsec	Web UI IPSEC configuration improvements	6281
Web/Mobile	Correct display of mobile interface type on web UI interface overview page	6787
Web/Status	Add download button for kernel and system log web: status->System Log web: status->Kernel Log	6794
Web/System	Fix firmware flashing error message	6286
Web/VRRP	Add support for configuration of VRRP Group Multicast Source IP web: network->vrrp->vrrp group configuration-> Multicast Source IP cli: vrrp.vrrp_group.mcast_src_ip	4057
Web/WiFi	Removed 40 MHZ channel option from web UI for GW1042 series	6706

10.525.03.03.000

Module	Short Description	Mantis
CWATCH	Ensure cwatch can handle comma separated ping destinations	
Ethernet	Ensure Ethernet ports aren't bridged during startup on GW1042 to avoid leaking traffic between LAN segments during reboot	5906
	Ensure that bridge interface in GW1042 uses MAC of first Ethernet interface	2664
	ifup now preserves VLAN interfaces when configuration has non VLAN and multiple VLANs attached to the same Ethernet interface	6247
	Increase frame size limit to accommodate large VLAN packets	6307
Event System	Fix boot success event	5927
GRE	Fix GRE keepalives	6554
Mobile	Add data-only configuration for Quectel EP06 module	
	Add display of additional Unitac signal values to vram command and web UI	
	Add switch to add switch to data-centric mode for Quectel EC25 and SIMCOM modules	
	Added 5G network registration status	
	Added PCI display for Unitac modules	6251
	Disable the APNs when connection is terminated for Unitac modules	6484

Ensure that Verizon APN is correct for default/initial bearer	6154
Enter airplane mode before attempting to change the default LTE bearer to avoid issues with SIM failover	5991
fix <code>chat</code> command failing if previous <code>chat</code> aborted	6210
Fix crash when LTE band retrieval for SIMCOM fails	
Fix ESN display where leading zero's were being omitted	6345
Fix for SMS received by Quectel EG25G via IMS in Verizon network	6594
Fix incorrect reporting of RSSI when using Unitac mobile module	6437
Fix multiwan to run with default group when no group name specified	
Fix to prevent the modification of the Verizon attach bearer	6043
Fix <code>va_roaming</code> ignoring <code>Stat=0</code> operators in roaming scan	6184
Ignore network provided DNS addresses if option DNS configured	6372
Improvements to operator scan:	
<ul style="list-style-type: none"> • Now commence an operator scan as follows; <code>AT+COPS=2</code> (detach from network); <code>AT+COPS=0;+COPS=?</code> (reattach and commence scan, all in one operation) • <code>AT+COPS=?</code> timeout increased to 190 seconds • automatically retry a failed <code>AT+COPS=?</code> command if it fails within 15 seconds • <code>vam roaming</code> now includes scan duration in seconds 	
Incorrect SINR reported for Quectel modules	5951
Mobile connection no longer dropped when 2 nd antenna is disconnected when using Unitac modules	6446
Prevent <code>+CGEV: NW DETACH</code> trigger warnings in the logs	6616
Re-connect to network automatically if <code>AT+CGATT=1</code> fails	
Support new option to enable MIMO on Unitac modules (disabled by default).	6499
<pre>web: services->mobile manager->advanced->Enable MIMO for Unitac radio Modules cli: mobile.mobile.unitac_mimo_enabled</pre>	
VA Mobile roaming diagnostic now shows roaming info for all modems by default	
<pre>cli: vam roaming</pre>	
Network	
Ensure <code>ifdown</code> kills all <code>ifup</code> processes on the same interface and not just the child processes	
Fix dependent interface behaviour when parent WAN interface is using QMI mobile interface	6493
Fix repeated <code>ifup</code> race condition on bridged interfaces	6265
QoS	
Fix QoS initialisation	6560
Routing	
Enable FRR <code>vty_enabled</code> option in user interface	6613
SCEP	
Added certificate expiry check during re-rollment	6235
Change new cert and key permissions when they are installed at the end of the SCEP process. Also adjust the CRLs directory to allow strongswan write access for runtime CRL downloads.	5908

	Fix intermittent issue where only one SCEP request was sent when multiple SCEP clients were configured	6523
	Fix loading of SCEP CA certificate	6525
	Strongswan is now restarted after SCEP renewal to ensure the peer correctly deletes the existing IKE_SA	6190
SNMP	Fix creation of SNMPv3 traps	5943
	Fix failing snmpwalk on vaModem MIB when no roaming info available	5922
Strongswan	Allow IPSec tunnels to start when CA certificate download fails and blocking is disabled in <code>scep_cert</code> config	6324
	Do not split long PSK into separate lines which would cause PSK to be read incorrectly and Phase1 failure	6537
	Remove FlexVPN GRE IP addresses on tunnel termination	5924
	Fix IKE SA delete being sent with correct message id to ensure IPSec peer does not discard	6246
Syslog	Fix multiwan errors in log when multiwan not configured	6489
System	Changed password hash algorithm option value to a ListValue <code>cli: list system.main.passwrld_hash_algo</code>	5001
	Fix auditing of DMVPN configuration using option <code>audit_cfg</code>	
	Prevent download of incorrect firmware family	
TACACS	Fix tab correction for TACACS+ user login via SSH	6527
TPM	Fix RSA key loading on big endian platforms	
	Improve support for TPM access from multiple processes to avoid TPM being locked by another process	6483
User Limits	Fix Procrustes user limit events	6538
Web	Fix web UI intermittently advising router is running in factconf when in config1	6547
	Improvements to web UI performance and load times	6178
Web/ Interface	Added <code>mtu</code> configuration option for PPPoEoA and PPPoA ADSL interfaces	5702
	Fix default gateway handling for DHCP protocol	6601
Web/ OpenVPN	Do not add <code>key_direction</code> option when set to its default value (bidirectional) when OpenVPN configured via web UI	6063
Web/BGP	Fix BGP network option for IP address/subnet input rather than interface name <code>web: network->bgp->global settings->Network</code>	6619
Web/Mobile	Prevent option <code>ifname</code> configuration being added to mobile interfaces when configured via web UI	6501
Web/SNMP	Improvements to web UI SNMP configuration	
Web/VA Event	Add length check in web UI for <code>snmp_auth_pass</code> and <code>snmp_priv_pass</code>	
Web/WiFi	Add WPA Enterprise configuration to web	5963
WiFi	Fix <code>ifup</code> transmission issue when WiFi is bridged with an Ethernet interface	6514

10.625.02.14.033

Module	Short Description	Mantis
Download	Fix interrupted download when <code>va_vars</code> incorrectly states image not found. Download now correctly continues rather than starting again.	6354
Mobile	Fix duplicated ICCID when using WP76xx-AU module on Merlin4600 series.	6352
	Fix SIM7070E with B10 firmware intermittently not being detected on boot.	6396
	Fix Unitac module detection (broken in release 25.02.14.030)	6387
TACACS	Fix TACACS behaviour when router is configured to only authorise authentication for SSH access (or other configured PAM services). Previously all authentication requests were sent to TACACS server instead of SSH only.	6050
TPM	Fix HTTPS incoming connection activation with key stored in TPM on Merlin4600 series.	6367
	Flush transient objects from TPM RAM upon session open on Merlin4600 series.	

10.725.02.14.027

Module	Short Description	Mantis
Download	Fix size calculation when image download exceeds 10M	6033
	Increase time limit for image download to 5 hours (previously 2 hours)	6266
HTTP Client	Set download minimum rate limit to 1kBps	6266
PPPoE	<code>ifup <ifname></code> now correctly re-establishes when <code><ifname></code> is a PPPoE link and is already up	6241
Serial	Fix serial LED settings when <code>option serialPortName</code> is configured on GW2124P series	6219
WiFi	Fix intermittent incorrect WiFi interface name generated by <code>ifup</code> command on WiFi interfaces	6253

10.825.02.14.016

Module	Short Description	Mantis
GPIO	Merlin4600 series digital input values changed to match GW2020 series for SCADA operation compatibility 0 = input not detected/open/low 1 = input detected/closed/high	
RTUD	RTUD auto generate config option now defaults to off in both web UI and router web: <code>scada->rtud->main settings->Auto generate configuration</code> cli: <code>rtud.rtud.point_auto_config_on</code>	6075
	Fix defaults for RTUD so web UI no longer shows errors when saving	6075

10.925.02.14.010

Module	Short Description	Mantis
Activator	Added RADIUS support to active updates Information sent to Activator via httpclient now includes all previous values: imei, sim1_iccid, sim2_iccid, hw_rev, sim1_imsi and sim2_imsi	3514
Busybox	Truncated ping responses now no longer discarded but noted in the ping response message	5658
DHCP	Improved reporting when external DHCP server detected	5520
Dropbear	Remove stale sshd service files causing issues with telnet access	5533
Ethernet	Enhancements to GW1042 Ethernet health check to avoid configuration blocking health check pings. Now allow ping broadcasts through base0 even if default output set to drop in firewall and dynamically add strongswan bypass policy rule	5758
	Fix default MAC address for Merlin4600 Ethernet ports	5740
	Fix LED port D behaviour on GW3300D	5869
	Restored missing arp-scan functionality on GW6600V cli: arp-scan (ip - l)	5829
Event System	Connection tester type link now correctly checking link state	5535
	Fix connection tester failing when ping source is specified web: services->va event system->connection tester->Ping Source cli: va_eventd.conn_tester.ping_source	5526
	Fix connection tester when using UCI interface name for ping source	5828
	Fix crash when invalid options are specified in config	1977
	Fix intermittent delay in sending syslog events	4902
	Fix to ensure failed SNMP traps are retried on delivery failure.	5527
	Fixes for crash caused by recursion	4734
GRE	Integrate keepalive responder to gre interfacesso every GRE interface will automatically start keepalive responder and reply to all GRE keepalive messages	5249
L2TP	Add new debug options for L2TP speed web: network->interfaces->L2TP->advanced settings->TX Speed cli: network.interface.l2tp_bps_tx	5769
	web: network->interfaces->L2TP->advanced settings->RX Speed cli: network.interface.l2tp_bps_rx	5770
L2TP	Fix vendor name in XL2TPD package	5771
Memory	Fix GW1400 series memory corruption	5620
Mobile	Add LTE band information to /var/state/mobile when using Huawei ME909U module (firmware > 12.63x.x)	3278
	Added Operator Code (5-digit MCC/MNC) and Cell ID to vam -a command Ensure HDR credentials are always provided when needed for CDMA connections. Fixes situations where this information could be lost by module or config transferred to another router.	5735

	Ensure LTE band lock stays enabled on Hucom modules	5447
	Fix crash when LTE band retrieval for SIMCom fails	
	Fix ICCID collection for second SIM on Sierra Wireless and Quectel EM06 modules. Previously showing same ICCID for both SIMs	5946
	Fix IP connectivity when using Huawei 709 with firmware 11.652.65.00.00	6076
	Fix missing IPv6 default route on QMI interfaces	5755
	Fix packet corruption caused by too small buffer size in Quectel/Simcom driver when using QMAP	
	Fix RSRP and RSRQ values reported by Simcom 7070 module using <code>vam -a</code> diagnostic command	5383
	Fix SIM in/out handling for Quectel modules	
	Fix SIM switch on Quectel RM500Q mobile module	5863
	Fix SMS msgs not decoding on 3Ireland Jasper SIMs	5888
	Fix <code>va_mobile</code> failing to start when SMS is enabled and caller config section is missing caller name option	4507
	Fixes for Cellient CDMA module crashes while dormant	5760
	Removed reset of default bearer APN at startup	5775
	Set LTE attach bearer for Huawei ME909 to ensure attaching to configured APN rather than default APN as detected by the mobile module	5634
	Support custom name for mobile config section	5542
	Support LTE band limitation for Huawei ME909U module (firmware > 12.63x.x)	3310
Network	Fix static default route configuration using target 'default' and netmask 0.0.0.0	5942
	Fixed \$ character in interface password leading to password corruption	5434
NTP	Defer chrony server instances until UCI interface is up to avoid misleading chrony errors in syslog	5550
	Fix incorrect stratum served to local clients. Fixes issue where local NTP server was defaulting to stratum 10, overriding the stratum retrieved from the remote NTP server once the clock had synchronised. Stratum can still be forced though configuration of <code>option stratum</code> however this is not recommended.	5550
	Include new UTC time in syslog message when clock is stepped	5659
OpenVPN	Added support for key direction configuration web: <code>services->openVPN->certificates->Key Direction</code> cli: <code>openvpn.openvpn.key_direction</code>	5762
PPP	Recover from connection stalling indefinitely when CHAP success message is lost in the network	4631
Radius	Support for Radius added to JKG family	
Radius/Tacacs	Support for Radius and TACACS added to JKG family	
SCEP	Support rsaes-oaep encryption for pkcs7 signedData password	5872
SFP	Fix interface failing to restart after network package restart	6079
SNMP	Fix MIB related issue running snmpd as dedicated unique user	4965

Strongswan	Decrease OCSP/CRL fetch timeout to 3 seconds from 10 seconds to avoid resource issues for multiple tunnels using CRL	5954
	Enable support for GCM encryption algorithm	5774
	Exclude password field from re-enrollment requests	5993
	Fix crash when verifying ECSDA signature	5633
	Fix IPsec tunnel operation when with <code>waniface</code> option present	5698
	Handle DER or PEM format for SECP fingerprint	5879
	In case multiple root CA's downloaded, verify fingerprint of the root	
	Send DELETE message from IKEv2 delete task for initiator. Previously when initiator, the router terminated the IKE_SA without sending a delete which led to problems when connected against another VA router in responder role.	6052
	Support multiple FlexVPN tunnels with different interfaces	5862
Syslog	Fix <code>changelog</code> not recording first change to each module after initialisation	5616
	Fix logging when <code>conloglevel</code> set to unsupported value	4482
	Suppress excessive kernel logging on Dakota WiFi	5312
	Add hotplug script debug logging option <code>cli: system.main.hotpluglog</code>	5646
	Added -M option to ping for mtu discovery behaviour <code>cli: ping <ip_address> -M PMTUD_OPT</code>	
	Backup, check and fix uboot environment in case of corruption on models using Sierra Wireless WP7600 series processor (GW1150, Merlin4600). Fixes rare situation where machtype could revert to incorrect model.	
	Debrand web and command line interface	5498
	Fix crash in <code>uci list</code> command <code>cli: uci list</code>	5596
	Remove stale <code>sshd</code> service files causing issues with telnet access on GW6600V	5333
TACACS	Support for TACACS added to JKG family	
Web/BGP	Added BGP status page <code>web: status->BGP</code>	5819

Web/BGP	Added missing options to web UI	5817
	<pre> web: network->bgp->global settings->Maximum Dynamic Neighbours cli: bgpd.routing.max_dynamic_neighbors web: network->bgp->global settings->VRF cli: bgpd.routing.vrf web: network->bgp->bgp neighbours->BGP instance cli: bgpd.peer.routing web: network->bgp->bgp neighbours->Inbound Route Map cli: bgpd.peer.inbound_route_map web: network->bgp->bgp neighbours->Outbound Route Map cli: bgpd.peer.outbound_route_map web: network->bgp->bgp neighbours->EBGP Multihop cli: bgpd.peer.ebgp_multihop web: network->bgp->bgp neighbours->Inbound Soft Reconfiguration cli: bgpd.peer.inbound_soft_reconf web: network->bgp->bgp neighbours->Source Interface cli: bgpd.peer.source web: network->bgp->bgp neighbours->>Password cli: bgpd.peer.password web: network->bgp->bgp neighbours group->BGP instance cli: bgpd.peer_group.routing web: network->bgp->bgp neighbours group->network cli: bgpd.peer_group.network web: network->bgp->bgp neighbours group->ASN cli: bgpd.peer_group.asn web: network->bgp->bgp neighbours group-Local Peer cli: bgpd.peer_group.next_hop_self web: network->bgp->bgp neighbours group->Holdtime cli: bgpd.peer_group.holdtime_sec web: network->bgp->bgp neighbours group->Keep-Alive Interval cli: bgpd.peer_group.keepalive_sec </pre>	5818
Web/Event System	Support for custom facility and target configuration options for syslog target	4739
	<pre> web: services->va event system->event destination->Facility cli: va_eventd.target.facility web: services->va event system->event destination->Severity cli: va_eventd.target.severity </pre>	
Web/IPsec	Support configuration for FlexVPN via web UI	6000
	<pre> web: services->ipsec->connection->Route Interface cli: strongswan.connection.route_interface web: services->ipsec->connection->FlexVPN Prefixes cli: strongswan.connection.flexvpn_prefixes </pre>	
	Support configuration of local cert via web UI	6000
	<pre> web: services->ipsec->scep certificate->Local Certificate cli: strongswan.connection.localcert </pre>	
Web/L2TP	Fix interface connect button for L2TP interfaces	5768
Web/Mobile IP	Fix web UI configuration when no configuration options exist in package dynamics	5787

Web/RADIUS	Add RADIUS and TACACS support to web UI web: system->system->PAM Authentication	5591
Web/SCEP	Support configuration of SCEP fingerprint and CA Name via web UI web: services->ipsec->scep certificate->CA Fingerprint cli: strongswan.scep_cert->fingerprint web: services->ipsec->scep certificate->CA Name cli: strongswan.scep_cert->ca_name	6001
Web/SNMP	Fix web UI configuration when no configuration options exist in snmpd system and agent configuration sections	5786
Web/Status	Added VRF to routing table display web: status->active routes	
Web/WiFi	Allow selecting modulation mode for Qualcomm qcawifi drivers	5219
WiFi	Fix Dakota WiFi defaults to be more secure	4408
WiFi	Ignore WiFi type when only single WiFi supported by firmware to avoid issues with third party AP's	5905

10.10 25.01.40.028

Module	Short Description	Mantis
Activator	Fix to correctly detect 'Software Up To Date' status from Activator	5481
DNS	Properly handle duplicate DNS entries on multiple interfaces	4993
Dropbear	Don't allow root to login if option <code>RootLogin</code> is disabled	5003
Ethernet	New automatic watchdog script to check switch MIB counters and reset if not incrementing on GW1042 hardware	3589 4423
Event System	Fix allocated memory boundaries violation with syslog target	5298
	Fix corrupted email target messages	5463
	Fix crash when SNMP target template length was multiple of 4 bytes	5460
	Fix intermittent memory management error	
	Increase event system target name length from 16 to 127 characters	5420
	Report system error when send fails due to session open failure	
	Use UDP port 162 by default for SNMP trap destination port	5435
Failsafe	Fix <code>reboot</code> command in failsafe mode	4885
GPS	Only try to get GPS coordinates for inventory collection when GPS enabled to avoid unnecessary log messages	4905 4919
HTTP Server	Added support for redirecting HTTP to HTTPS web: services->http server->Redirect HTTP requests to HTTPS cli: uhttpd.main.redirect_https	4585
ISAD	Add info on cell technology used for each bin	5159
LED	Power/Config led off now flashes slowly while the router is in recovery mode.	4510
Mobile	Add additional echo detection as an indication of radio module reset	5410
	Ensure mobile interfaces get a /32 netmask.	5173

	Ensure that roaming template generated multiwan interfaces are updated when <code>va_mobile</code> is restarted	5010
	Fix auto connect if mobile interface dropped during DST transition hour when moving from BST to GMT	5334
	Fix connectivity issues in PPP mode with some APNs due to dialled address in dial string	5314
	Fix fix signal strength reporting for Asiatel modules	5146
	Fix intermittent issue where route is not populated to routing table when mobile interface comes up on QMI interfaces	4847
	Fix parsing of special characters in mobile username and password	5070
	Fix Quectel EM06 GPS location	4940
	Fix SINR=-1 readings clearing out other mobile status values	4907
	Fixed bug in the reinitialisation of the QMI control code which led to a failure to detect the loss of connectivity and failures when trying to re-establish connectivity	5242
	Fixes so that we support IPv4, IPv4v6 and IPv6-only modes for PPP and QMI	4839
	Improve interface status detection for roaming templates interfaces	4988
	Improvements to detection and recovery of mobile module restart	5310
	Only poll temperature on SIMCom7100 modules that support it to avoid signal quality monitoring not being enabled due to disabling of temperature monitoring	4914 4916
	Report correct SIM slot after roaming scan	4987
	Support for new option <code>ip6ifaceid</code> for ability to set IPv6 suffix and add to received prefix to form full IPv6 address. <code>cli: network.interface.ip6ifaceid</code>	4840
	Use PDP context 3 for Quectel, Simcom and Sierra Wireless modules as the first data context. This fixes issues on Verizon networks where only context 3 can be used.	4921
Multiwan	Poison routes of managed interface after interface start so that routing is confirmed before redirecting traffic over it	5287
	Always configure <code>lo</code> interface with 127.0.0.1/8 address	4760
	Fix carrier check to only run for Ethernet interfaces	5409
	Prevent duplicate default route when using PPP mode for a mobile connection	5130
SCEP	Support for Cisco CA	4841
SNMP	Ensure that both specific field (SNMPv1) and <code>snmpTrapOID</code> (SNMPv2+) are set correctly.	5449
Strongswan	Don't reject certificates with invalid certificate policies. The certificate policy itself is still considered invalid and is not returned in the auth config resulting from trust chain operations.	5110
	Ensure all certs and keys are only writable by root and readable by strongswan	5161

	Fix crash in <code>ipsec statusall</code> output parser when lua pattern magic characters are used. Fixes issue with IPsec status web UI page not displaying when using the minus symbol '-' in policy names.	4901
	Fix crash when responding to connection initiation when NATT disabled	5293
Syslog	Frequent <code>upnp</code> messages in syslog no longer generated	5160
System	Avoid overwriting <code>/dev/null</code> with newly created config file when configuration audit is enabled	5080
	Ensure <code>/etc/systime</code> is updated upon reboot command issued from Activator	5297
USB	Fix USB intermittently changing serial port mapping after reboot by introduction of new option for mapping a user-friendly serial port name to the underlying linux device name. See new features section above. <code>cli: tserverd.port.serialPortName</code>	5107
VA Events	Correct wrong parameter order in BadPasswordSSH event default template	4849
	Fix <code>cwatch</code> <code>vaevent</code> generation	4904
Web/Firewall	Fix issue in port-forward rule creation via web UI	4872
Web/Flash Operations	Improve hash checking of firmware upgrade via web UI	4984
Web/System	Added configuration of luci login template information to web UI <code>web: system->system-general settings->Login info template</code> <code>cli: luci.main.login_page_info_template</code>	3791
	uImage with appended uboot now updates correctly via the web	5006
Web/WiFi	Allow configuration of modulation mode	5219
WiFi	Support for option to hide SSID <code>web: network->wifi->interface configuration->Hide ESSID</code> <code>cli: wireless.wifi-iface.hidden</code>	5375

Note: Changes for releases prior to CPX-25.01.43.028 have been archived