

# WESTERMO

## CPX Software Release Notes GW1032/1042 Series

Release CPX-25.05.22.001

Hardware Models	GW1032; GW1042 Series
Revision	1.00.24
Approval status	Approved
Date:	20 February 2026
Brief description	Details the release of system software CPX-25.05.22.001 for GW1032/1042 Series

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# 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
03 April 2025	1.00.22	Release notes for CPX-25.04.57.000
20 November 2025	1.00.23	Release notes for CPX-25.05.22.000
20 February 2026	1.00.24	Release notes for CPX-25.05.22.001

# 2 Release statement

CPX-25.05.22.001 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-25.05.22.001.image	11,845,632	20/02/2026	ec7c5b10e3abc4a9317613f1f1b351a8

## 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
25.05.22.000	dropbear	Support SSH-ed25519 host key	Low	8933
	system	Fix file security permissions	Low	6406
		Force root password change on first log in for routers shipped with default credentials	Low	8743
		Mask sensitive information in audit logs	Low	8365
		Support configurable data at rest encryption	Low	6947
25.04.57.000	luci	Added Security-Policy-Header (CSP) to prevent clickjacking	Low	8087
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
	iosrpd			4968
	openvpn	Applications now run with dedicated unique user and group id instead of root privileges		4970
	rtud			4971
	rtud			4973
	strongswan			4974
	tservd			5003
	xl2tpd			
	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
frr	Vulnerability affecting current version of frr CVE-2024-27913	Low	8204
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, CVE-2022-0778, CVE-2022-2068	Medium	7301

## 5 New features

No new features

## 6 Deprecated features

Firmware	Package	Description	Mantis
25.05.22.000	mobile	Removed support for downloading a factory config via a SIM card	8373
	OpenVPN	Removed <code>openvpn_recipies</code> package	8504
	SCEP	Deprecated <code>strongswan.scep_cert.blocking</code> option. SCEP client will now trigger a strongswan reload should the cert be in use by strongswan	8377
	zabbix	Removed Zabbix agent	8469
25.04.57.000	network	Mobile operator lock <code>option opformat</code> deprecated. Operator locking ( <code>option operator</code> ) now only uses PLMN ID.	8254
25.04.35.000	Web/IECD	Removed serial baud rates below 1200 from web UI configuration pages. These values are available via <code>Modbus #1 Serial Speed</code>	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 ( <code>ard</code> )	
	dnsmasq	Removed <code>dhcp.dnsmasq.nodaemon</code>	
25.01.40.028	Upnp	Removed <code>miniupnp</code>	
	Wget	Removed <code>wget busybox</code> applet	

## 7 Known issues

Module	Short Description	Mantis
DHCP Server	DHCP server won't assign an address when client moved from one port to another without restart of <code>dnsmasq</code>	8532
DDNS	DDNS not starting due to permission errors	8803
GPS	No GPS support for SIMCOM7070	

IECD/IEC61850	IEC61850 master does not send <code>CreateDataSet</code> command to create dynamic datasets.	8799
Multiwan	Syslog messages showing incorrect interface and SIM combination in certain scenarios	8623
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	SSH MFA not being enforced	8047
Web	IEC61850M link loading issue when SCL file is uploaded	8558
	GRE keepalive options missing from web UI	8840
	No error is generated when invalid firewall rule configured	9004
	SCEP certificate status not updated upon deletion	8998
	Unable to load .P12 or .PXF certificate files via the web UI	8519
	Unable to configure <code>iec61850m_poll_delay_ms</code> , <code>iec61850m_poll_time_secs</code> , <code>iec61850m_dspoll_time_secs</code> and <code>iec61850m_dynamic_ds_on</code> via the web UI	8805
	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
	Unable to configure management users via web UI	5503
Web intermittently failing to load when WeConnect is active	7808	

## 8 Problems resolved

Module	Short Description	Mantis
Mobile	Fix signal strength and SIM LEDs on GW1032 CDMA model	9247

## 9 Appendix 1: New features history

### 9.1 Release 25.05.22.000

802.1x				
Port based 802.1x	New option to specify bridge ports where 802.1x is only required on selected ports			8234
	Package	Section	Options	
	ieee8021x	authenticator	ports	
Connection Watch				

	Support new options to specify maximum permitted jitter and latency					
Jitter and latency check detection	<u>Package</u>	<u>Section</u>	<u>Options</u>	8095		
	cwatch	watch	icmp_jitter_check_enabled; icmp_max_jitter; icmp_latency_check_enabled; icmp_max_latency; icmp_max_average_latency			
<b>Dropbear</b>						
Ed25519 support	Support SSH-ed25519 host key for SSH server authentication			8933		
SSH algorithm configuration	Support configuration of cipher, host key and key exchange algorithms for SSH connections			8344		
	<u>Package</u>	<u>Section</u>	<u>Options</u>			
	dropbear	dropbear	cipher; sign_algo; kex_algo			
<b>Event System</b>						
	Added multiwan class and events for group start, interface acquisition and interface state changes to the Event System					
	<u>Class</u>	<u>Id</u>	<u>Name</u>	<u>Severity</u>	<u>Event Template</u>	
Multiwan events	multiwan	1	MultiwanGroupStart	informa	Multiwan group %p1} started with %p2} interfaces	8807
	multiwan	2	MultiwanInterfaceAcquired	informa	Multiwan group %p1}: interface %p2} initial state is %p3}	
	multiwan	3	MultiwanInterfaceStateChange	informa	Multiwan group %p1}: interface %p2} was %p3} now %p4}	
<b>HTTP Client</b>						
SSL cipher configuration	Added support for configuration of supported SSL ciphers			8367		
	<u>Package</u>	<u>Section</u>	<u>Options</u>			
	httpclient	core	TLS13Cipher; LegacyCiphers			
<b>HTTP Server</b>						
TLS cipher configuration	Added support for limiting allowed TLS ciphers			7121		
	<u>Package</u>	<u>Section</u>	<u>Options</u>			
	uhttpd	uhttpd	tls_ciphers			
<b>Multiwan</b>						
	Support new options to specify maximum permitted jitter and latency for a multiwan interface					
Jitter and latency detection	<u>Package</u>	<u>Section</u>	<u>Options</u>	8435		
	multiwan	interface	icmp_jitter_check_enabled; icmp_max_jitter; icmp_latency_check_enabled; icmp_max_latency; icmp_max_average_latency			

Mobile			
LWM2M FOTA support	Support Verizon LWM2M FOTA upgrade		8927
Telit Cinterion support	Support Telit Cinterion TX62-W-C LTE-M mobile module on Merlin3100 series		8988
NTP			
Time sync on boot only	Support time sync on boot only for scenario where SCADA time source is used but NTP required to sync on boot		8929
	<u>Package</u>	<u>Section</u>	<u>Options</u>
	system	timeserver	initial_sync_only_enabled
OpenVPN			
Two factor authentication	Added support for 2FA for OpenVPN using PAM module. New server-side authentication of client provided username and password against local PAM.		8098
	<u>Package</u>	<u>Section</u>	<u>Options</u>
	openvpn	openvpn	pamauth_enabled
	system	pam_auth	pamservice 'openvpn'
Password Management			
ERE regex support	Support Extended Regular Expressions (ERE) for password regex rules		8905
Force password change on first log in	Routers shipped with the default root password now require the root password is changed on first log in using a password policy of >= 16 chars. This is required on first connection attempt via console, SSH or web UI.		8743
	<u>Package</u>	<u>Section</u>	<u>Options</u>
	managemen	user	change_password_on_first_login
	t_user		
Force password change on expiration	Support password change on expiration so that when a management user is logging in with an expired password, they are immediately prompted to change the password		8770
Root password lifetime	Extend password lifetime support to cover root management users		8749
Routing			
PIM Multicast	PIM multicast support is now available via the FRR module		8362
Scada			
DNP3 class assignment	Support for class assignment to DNP3 data points on server side.		8889
DNP3 Deadband	Support deadband functionality to DNP3S points.		8890

	DNP3 master now supports communication with two RTU over a single serial link. All existing DNP3 master options now have <code>_link2_options</code>										
DNP3 Multidrop	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>iecd</td> <td>port</td> <td>dnp3_num_links; dnp3_transport_protocol 'multidrop'; dnp3_link2_transport_protocol 'multidrop'</td> </tr> </tbody> </table>	Package	Section	Options	iecd	port	dnp3_num_links; dnp3_transport_protocol 'multidrop'; dnp3_link2_transport_protocol 'multidrop'	8313			
Package	Section	Options									
iecd	port	dnp3_num_links; dnp3_transport_protocol 'multidrop'; dnp3_link2_transport_protocol 'multidrop'									
Health Point multiple RTU tracking	<p>Added support for health point list to track data link state of multiple RTUs</p> <table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>iecd</td> <td>point</td> <td>iecd104_track_rtu_hp_ioa</td> </tr> </tbody> </table>	Package	Section	Options	iecd	point	iecd104_track_rtu_hp_ioa	8687			
Package	Section	Options									
iecd	point	iecd104_track_rtu_hp_ioa									
IEC104S ActTerm	<p>Added ability to skip waiting for <code>ACTTERM</code> message as some clients and servers do not support it</p> <table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>iecd</td> <td>port</td> <td>iecd104_no_tx_act_term; iecd104m_nowait_act_term</td> </tr> </tbody> </table>	Package	Section	Options	iecd	port	iecd104_no_tx_act_term; iecd104m_nowait_act_term	8624			
Package	Section	Options									
iecd	port	iecd104_no_tx_act_term; iecd104m_nowait_act_term									
IEC61850 extended RTU support	Added support for up to 30 local RTUs for IEC104 to IEC61850 protocol conversion	8353 8570									
MQTT SNI extension	Support for Server Name Indication (SNI) extension. SNI is part of TLS client hello and contains a copy of server hostname - required by some MQTT brokers to authenticate the connecting client	8851									
MQTT upload certs	Support upload of certificates for MQTT Server										
SNMP Master Protocol	Support SNMP protocol as a new master RTU protocol	8928									
<b>SCEP</b>											
Cisco CA Type	<p>Support CA Type <code>'cisco'</code> in SCEP Client</p> <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>caimpl 'cisco'</td> </tr> </tbody> </table>	Package	Section	Options	strongswan	scep_cert	caimpl 'cisco'	8464			
Package	Section	Options									
strongswan	scep_cert	caimpl 'cisco'									
<b>SNMP</b>											
VA-MULIT-IO MIB	SNMP support for digital IO's using VA-MULTI-IO MIB	6478									
<b>Strongswan</b>											
XAUTH-PAM authentication	<p>Support xauth-pam authentication. A responder-side authentication variant for ikev1 where credentials are accepted via XAuth and checked against PAM</p> <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>remoteauth 'xauth-pam'; remoteauth2 'xauth-pam'</td> </tr> <tr> <td>system</td> <td>pam_auth</td> <td>pamservice 'ipsec'</td> </tr> </tbody> </table>	Package	Section	Options	strongswan	connection	remoteauth 'xauth-pam'; remoteauth2 'xauth-pam'	system	pam_auth	pamservice 'ipsec'	8420 8543
Package	Section	Options									
strongswan	connection	remoteauth 'xauth-pam'; remoteauth2 'xauth-pam'									
system	pam_auth	pamservice 'ipsec'									
<b>System</b>											
CPU temperature	Added support to show CPU temperature <code>cli: showtemp</code>	6478									

Factory Reset	New factory reset from command line with customised reset behaviour control cli: va_factory_reset.sh	8974						
Overlay Encryption	Added support for data at rest encryption <table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>system</td> <td>failsafe</td> <td>encrypt_overlay</td> </tr> </tbody> </table>	Package	Section	Options	system	failsafe	encrypt_overlay	6947
Package	Section	Options						
system	failsafe	encrypt_overlay						
<b>Web UI</b>								
Authentication	PAM configuration moved to Security section web: Security->Authentication							
Certificate Management	New web UI page added for management of certificates and keys web: security->certificates	8464						
Connection Watch	Split web UI watch configuration into tabs and add connection watch status	6973						
Customised factory reset	Added Factory Reset, Factory Reset and Certificate Deletion and Reset for Decommissioning operations web: System->Flash Operations	8677						
Event System	Add Ethernet LinkUp/LinkDown events to event filters list	8792						
GNSS	Add sky view for GNSS satellites and automatically refresh GPS satellite information every 5 seconds	8537						
HTTP Server	Support disabling web UI option in web UI web: Security->HTTP Server->Enable this web UI cli: uhttpd.main.webui_enabled	8730						
Inventory	Support SNMP inventory configuration web: system->snmp->Inventory web: system->snmp->IF Table	9000						
IPSec	Add IPSec status to Status Overview when IPSec is enabled	6965						
Log in	Support force password change via web UI	8743						
Mobile Roaming Manager	Support Mobile Roaming Manager network configuration via web UI web: network->interfaces->mobile interface->Roaming Manager	6976						
Multiwan	Individual tabs for each Multiwan interface. Configured interfaces now presented as selection rather than text	8435						
	Support Mobile Roaming Manager multiwan configuration via web UI web: network->multiwan->wan interfaces->general->Interface Scanning Timeout opt: multiwan.interface.ifup_scanning_timeout_sec web: network->multiwan->wan interfaces->general->Retry on first fail opt: multiwan.interface.retry_on_first_fail web: network->multiwan->wan interfaces->general->Connection Retry Timeout opt: multiwan.interface.retry_connection_max_sec	6976						

OpenVPN	Support push routes for OpenVPN server mode web: VPN->OpenVPN->Advanced->Push cli: list push 'route <ip> <mask>'	8712
PPPoE interface	Support configuration of multiple PPPoE interfaces on the same Ethernet link	4287
Time Synchronisation	Support NTP time sync on boot configuration web: system->time synchronization->Enable Boot-Time Only Time Sync	8929
Scada	Added display of statistic counters to IECD status page cli: iec show stats	8338
	Enhancements to DNP3S point group ID selector configuration	8514
	IECD Slave configuration changed to IECD Server	8894
	Move MQTT Topic configuration options into a separate tab	8685
	Move VHMI configuration into a separate tab	8530
	Support upload of certificates for MQTT server web: scada->iecd->server protocol->configured mqtt->TLS	8951
SCEP Client	Enhancements to SCEP Client configuration <ul style="list-style-type: none"> <li>• moved SCEP Client configuration to Certificate Management page</li> <li>• add check for PSK length</li> <li>• added SCEP Client status</li> </ul>	8464
SSH	Removed <code>kex-strict-s-v00@openssh.com</code> from the web UI list of configurable SSH key exchange algorithms. It is now always added to the allowed key exchange algorithm list.	8917
STP Status	Added Spanning Tree Protocol status of bridge interfaces web: status->stp status	8791
System	Support masking of passwords in configuration audit logs web: system->audit configuration->Mask Passwords cli: system.system.audit_cfg_mask_passwords	8365
User-Defined Scripts	Individual tabs for each UDS and new UDS overview page	8361

## 9.2 Release 25.04.57.000

Network				
Multi Path Routes	Support for Equal Cost Multi Path (ECMP) feature. Route has a single target but multiple gateway/interface pairs to route over.			8219
	Package	Section	Options	8250
	network	mp_route	paths; target, netmask, metric, mtu, mark	
		mpath	interface; gateway, weight	
NTP				

NTP min/max poll interval	Allow configuration of minpoll and maxpoll interval using existing NTP interval hours option (space separated parameters)			8318
	<u>Package</u>	<u>Section</u>	<u>Options</u>	
	system	timeserver	interval_hours	
Password Scrambling				
Monitor SNMP v3 passwords	Monitor SNMP v3 password options now added to the set of passwords fields that can be scrambled			8090
	<u>Package</u>	<u>Section</u>	<u>Options</u>	
	monitor	keepalive	snmp_auth_pass; snmp_priv_pass	
Scada				
Automatic IEC104 point configuration	Support automatic IEC104 point configuration after IEC61850 SCL file import			8248
DNP3 G10 and G41	Support conversion from DNP3 Binary Output Command G10 and G41 to IEC60870-5-101			8100
	<u>Package</u>	<u>Section</u>	<u>Options</u>	
	iecd	point	iec101_qu	
IEC101 to IEC104 Fully Transparent mode	Support IEC104 to IEC101 transparent mode which allows any ASDU CA when ca configured in the link is zero. Also provides ability to replace IEC101 message TypeID with another configured TypeID before it is transmitted to IEC104.			8161
IEC104 Type ID 51 and 64	Support for IEC104 Slave to IEC104 Master Bitstring command conversion			8192
VRTU data types	Support VRTU data types and periodic auto updating per point			8233
	<u>Package</u>	<u>Section</u>	<u>Options</u>	
	iecd	point	vrtu_value_type; vrtu_value_init; vrtu_periodic_value_change	
SNMP				
VA-UCI-MIB alias ifNumber	Defines the Alias ifNumber for the uciIfTable (VA-UCI-MIB) for ensuring interfaces in the uciIfTable persistent across reboots and configuration changes.			8094
	<u>Package</u>	<u>Section</u>	<u>Options</u>	
	network	interface	uci_alias_ifnumber	
System				
Firmware and configuration rollback	Support automatic rollback of firmware or configuration if router fails to reconnect to Activator after firmware or configuration update using Activation or Active Update. Feature enabled by default.			3012
	<u>Package</u>	<u>Section</u>	<u>Options</u>	
	rollback	core	enabled; timer	
GW1042 Lite	Support for GW1042 Lite variant with single SIM and no Wifi (machtype: MTATH001)			8117
WiFi				

	Support new option for limiting devices on a WiFi interface			
Device limiting	<u>Package</u>	<u>Section</u>	<u>Options</u>	7925
	wireless	wifi-iface	maxassoc	

## 9.3 Release 25.04.35.000

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) 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.				7769	
	<u>Package</u>	<u>Section</u>	<u>Options</u>			
	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	
	<u>Package</u>	<u>Section</u>	<u>Options</u>			
	network	interface	bcp; maclocal			
Scada						
Modbus TCP	Added TCP port number to route config				7977	
	<u>Package</u>	<u>Section</u>	<u>Options</u>			
	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
	cli: debug mobile on cli: debug ipsec on cli: debug multiwan on			

## 9.4 Release 25.04.19.000

Console				
Console disable	Support new option for disabling the console port			7802
	Package	Section	Options	
	system	failsafe	console	
Interface				
Interface Status	Include physical ports with eth-X interfaces in interface status			7900
	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_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			7841
	Package	Section	Options	
	mobile	mobile	sim1_enable_psm; sim2_enable_psm	

	Improvements to SMS queue processing and support new options for better control how SMS messages are handled			
SMS security	<u>Package</u>	<u>Section</u>	<u>Options</u>	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			6931
	<u>Package</u>	<u>Section</u>	<u>Options</u>	
	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
	<u>Package</u>	<u>Section</u>	<u>Options</u>	
	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
	<u>Package</u>	<u>Section</u>	<u>Options</u>	
	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
	<u>Package</u>	<u>Section</u>	<u>Options</u>	
	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
	<u>Package</u>	<u>Section</u>	<u>Options</u>	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
	<u>Package</u>	<u>Section</u>	<u>Options</u>	
	management_user	user	max_passwd_age	
Password regex	Support configuring password regex rules. Applies to root password and management users password			7194
	<u>Package</u>	<u>Section</u>	<u>Options</u>	
	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									
	<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>adaptive_keepalive</td> </tr> </tbody> </table>	Package	Section	Options	network	interface	adaptive_keepalive				
Package	Section	Options									
network	interface	adaptive_keepalive									
<b>RADIUS</b>											
NAS-Identifier option	Support new configuration option for NAS-Identifier with support for %serial and %hostname option values	7347									
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>system</td> <td>pam_auth</td> <td>radius_nasid</td> </tr> </tbody> </table>	Package	Section	Options	system	pam_auth	radius_nasid				
Package	Section	Options									
system	pam_auth	radius_nasid									
<b>SCEP</b>											
TPM support	SCEP now supports key pair management in TPM	7125									
	<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>use_tpm; key_label</td> </tr> </tbody> </table>	Package	Section	Options	strongswan	scep_cert	use_tpm; key_label				
Package	Section	Options									
strongswan	scep_cert	use_tpm; key_label									
<b>SNMP</b>											
Multiwan state OID	Added ifMultiwanState to VA-UCI-MIB	6915									
Sim detection OID	Added SimIn to VA-MODEM-MIB	6915									
<b>SSH</b>											
Limit concurrent users	Support new option for limiting concurrent authenticated user sessions (Mantis: 7160)	7160									
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>dropbear</td> <td>dropbear</td> <td>MaxConnections</td> </tr> </tbody> </table>	Package	Section	Options	dropbear	dropbear	MaxConnections				
Package	Section	Options									
dropbear	dropbear	MaxConnections									
<b>Strongswan</b>											
IKEv2 Multiple subnet support	Support multiple subnets for ikev2	6026									
	<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>locallanextra; remotelanextra</td> </tr> </tbody> </table>	Package	Section	Options	strongswan	connection	locallanextra; remotelanextra				
Package	Section	Options									
strongswan	connection	locallanextra; remotelanextra									
TPM support	Support strongswan keys in TPM. TPM keys are supported via the token secret type. In this case the value of the secret specifies the label of the key to use.	4460									
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>strongswan</td> <td>secret</td> <td>secrettype 'token'; secret '&lt;TPM-label&gt;'</td> </tr> </tbody> </table>	Package	Section	Options	strongswan	secret	secrettype 'token'; secret '<TPM-label>'				
Package	Section	Options									
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									
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>strongswan</td> <td>general</td> <td>vrf</td> </tr> </tbody> </table>	Package	Section	Options	strongswan	general	vrf				
Package	Section	Options									
strongswan	general	vrf									
XAuth EAP support	Added support for xauth-eap and eap-radius authentication methods	6294									
	<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>localauth; localauth2; remoteauth; remoteauth2</td> </tr> <tr> <td></td> <td>radius_server</td> <td>enabled; address; secret; auth_port; acct_port</td> </tr> </tbody> </table>	Package	Section	Options	strongswan	connection	localauth; localauth2; remoteauth; remoteauth2		radius_server	enabled; address; secret; auth_port; acct_port	
Package	Section	Options									
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 Options			
	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		
	Package	Section Options			
	system	system password_hash_algo 'hmac'			
VA Events					
802.1x events	VA Event System now supports <code>ieee8021x</code> event class and events			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		
	Package	Section Options			
	uhttpd	main webui_enabled			
Limit concurrent users	Support new option for limiting concurrent user sessions		7161		
	Package	Section Options			
	luci	sauth sessionlimit			
LTE band display	Show supported LTE bands for enable/disable via Web UI. <code>web: services-&gt;mobile manager-&gt;lte</code>				
Session control	Added utility to list and terminate web sessions (Mantis: 7159)		7159		
	<code>web: system-&gt;sessions</code> <code>cli: sessionctl</code>				
Web UI theme	New restructured web UI with navigation links on left side frame.				
WeConnect					

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DCU VPN Concentrator Support	Added support for DCU VPN Concentrator to WeConnect
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## 9.5 Release 25.03.43.011

No new features

## 9.6 Release 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"> <li>When configured for <b>PEM</b> 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 -&gt; "uhttpd").</li> <li>When configured for <b>TPM</b> key and key cannot be found in the TPM, the router will try to use file "/etc/&lt;tpm label&gt;.key"</li> </ul>						
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> <p>cli: vam -n</p>						
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> <p>cli: tpm-cli listkeys</p>						

## 9.7 Release 25.03.43.000

GPS	
GPS MIB support	Added support for VA-GNSS-MIB for retrieval of GPS values

Network			
Dummy interface support	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.		
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)		
	Package	Section	Options
	network	interface	ignore_carrier_state (def: no)
Roaming Manager			
Roaming Manager connection retry options	Added new connection retry options for Roaming Manager feature		
	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			
GNSS time synchronisation	Added support for time update via GNSS. Note: Router requires GNSS capabilities and GNSS is enabled (Mantis: 6229)		
	Package	Section	Options
	system	timeserver	gnss_clock_source_enabled (def: no)

## 9.8 Release 25.03.03.000

BGP	
BGP MIB support	Added BGP-4-MIB support so BGP information can be retrieved 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)						
<b>Monitor</b>							
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)						
	<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					
<b>Multiwan</b>							
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.						
	<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><code>ifup_scanning_timeout_sec</code> (def: 480 secs)</td> </tr> </tbody> </table>	Package	Section	Options	multiwan	interface	<code>ifup_scanning_timeout_sec</code> (def: 480 secs)
Package	Section	Options					
multiwan	interface	<code>ifup_scanning_timeout_sec</code> (def: 480 secs)					

## 9.9 Release 25.02.14.033

No new features

## 9.10 Release 25.02.14.027

<b>Mobile</b>	
EID retrieval	Support EID retrieval for SIMCOM7070E (Mantis: 6236)

## 9.11 Release 25.02.14.016

No new features

## 9.12 Release 25.02.14.010

<b>BGP</b>
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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)						
	<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>ebgp_multihop; source</td> </tr> </tbody> </table>	Package	Section	Options	bgp	peer	ebgp_multihop; source
Package	Section	Options					
bgp	peer	ebgp_multihop; source					
Peer password configuration	Support for BGP peer password configuration						
	<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>password</td> </tr> </tbody> </table>	Package	Section	Options	bgp	peer	password
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					
<b>Cwatch</b>							
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					
<b>Event System</b>							
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					
<b>GRE</b>							
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					
<b>Interface</b>							

<p>Interface status logging</p>	<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/interfacelog[*]</code>.</p> <p>Log can be displayed via the web UI at <code>status-&gt;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					
<p>Routing table display</p>	<p>Enhanced display of routing table via web UI at <code>Status-&gt;Active Routes</code> to include Protocol and VRF (Mantis: 5823)</p>						
<p>Mobile</p>							
<p>Roaming SIM enhancements</p>	<p>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.</p> <p>Unlike the existing roaming support (configured via <code>/etc/config/mobile</code> 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.</p>						
<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_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</td> </tr> </tbody> </table>		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
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					
<p>NTP</p>							
<p>Custom chrony configuration</p>	<p>Support for configuration of custom chrony options through web UI at <code>system-&gt;system-&gt;time synchronisation-&gt;Custom Chrony configuration options</code></p>						
<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>list text</td> </tr> </tbody> </table>		Package	Section	Options	system	timeserver	list text
Package	Section	Options					
system	timeserver	list text					
<p>Local clock drift factor recording</p>	<p>Hidden configuration option <code>system.timeserver.driftfile</code> now defaults to <code>/root/chrony/chrony.drift</code> to record local clock drift factor and reduce synchronisation time on subsequent boots</p>						
<p>Strongswan</p>							
<p>CEP certificate debug level</p>	<p>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 <code>debug_level</code>. Set to 0 to disable. (Mantis 5881)</p>						
<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>debug_level</td> </tr> </tbody> </table>		Package	Section	Options	strongswan	scep_cert	debug_level
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)						
	<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>user (def: strongswan)</td> </tr> </tbody> </table>	Package	Section	Options	strongswan	scep_cert	user (def: strongswan)
Package	Section	Options					
strongswan	scep_cert	user (def: strongswan)					
<b>WeConnect</b>							
WeConnect support	<p>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.</p> <p>Contact your local Westermo reseller or visit <a href="http://weconnect.westermo.com">weconnect.westermo.com</a> for further information.</p>						
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>weconnect</td> <td>weconnect</td> <td>weaddress; weint_name; confver; wetoken; weotp; rip_int</td> </tr> </tbody> </table>	Package	Section	Options	weconnect	weconnect	weaddress; weint_name; confver; wetoken; weotp; rip_int
Package	Section	Options					
weconnect	weconnect	weaddress; weint_name; confver; wetoken; weotp; rip_int					

## 9.13Release 25.01.40.028

<b>Ethernet</b>							
Software watchdog	New automatic watchdog script to check switch MIB counters and reset if not incrementing on GW1042 hardware.						
<b>Mobile</b>							
Mobile backoff configuration	<p>New feature to support configuration of backoff and reconnection timers on mobile interfaces. This allows for configuration for the number of <code>ifup</code> failures before backoff and the amount of time to wait before connection retry. The connection retry timer can be configured to incrementally increase.</p>						
	<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>failures_to_backoff; backoffminutes</td> </tr> </tbody> </table>	Package	Section	Options	network	interface	failures_to_backoff; backoffminutes
Package	Section	Options					
network	interface	failures_to_backoff; backoffminutes					
Mobile custom initialisation string	<p>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:</p> <ul style="list-style-type: none"> <li>• The initialisation string</li> <li>• The response to wait for</li> <li>• The timeout to wait for the response</li> </ul>						
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>mobile</td> <td>main</td> <td>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</td> </tr> </tbody> </table>	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
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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 <code>sim[1 2]_loci_file_reset_enabled</code> 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								
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>mobile</td> <td>main</td> <td><code>sim1_loci_file_reset_enabled;</code> <code>sim2_loci_file_reset_enabled</code></td> </tr> </tbody> </table>	Package	Section	Options	mobile	main	<code>sim1_loci_file_reset_enabled;</code> <code>sim2_loci_file_reset_enabled</code>		
Package	Section	Options							
mobile	main	<code>sim1_loci_file_reset_enabled;</code> <code>sim2_loci_file_reset_enabled</code>							
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><code>multiwan_exclusive_group</code></td> </tr> </tbody> </table>	Package	Section	Options	mobile	roaming_template	<code>multiwan_exclusive_group</code>		
Package	Section	Options							
mobile	roaming_template	<code>multiwan_exclusive_group</code>							
<b>SNMP</b>									
CDMA 450 MIB support	Added CDMA 450 MIB support to <code>vaModem.mib</code> for EC/IO, DRC and PN-Code								
	<table border="1"> <thead> <tr> <th>MIB</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td><code>vaModem.29</code></td> <td>EC/IO</td> </tr> <tr> <td><code>vaModem.30</code></td> <td>DRC</td> </tr> <tr> <td><code>vaModem.31</code></td> <td>PN-Code</td> </tr> </tbody> </table>	MIB	Description	<code>vaModem.29</code>	EC/IO	<code>vaModem.30</code>	DRC	<code>vaModem.31</code>	PN-Code
MIB	Description								
<code>vaModem.29</code>	EC/IO								
<code>vaModem.30</code>	DRC								
<code>vaModem.31</code>	PN-Code								
LTE band MIB support	Added LTE band to <code>vaModem.mib</code>								
	<table border="1"> <thead> <tr> <th>MIB</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td><code>vaModem.22</code></td> <td>LTE band</td> </tr> </tbody> </table>	MIB	Description	<code>vaModem.22</code>	LTE band				
MIB	Description								
<code>vaModem.22</code>	LTE band								
<b>Strongswan</b>									
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><code>disable_mobike;</code> <code>mobike_send_additional_self;</code> <code>disable_natt</code></td> </tr> </tbody> </table>	Package	Section	Options	strongswan	connection	<code>disable_mobike;</code> <code>mobike_send_additional_self;</code> <code>disable_natt</code>		
Package	Section	Options							
strongswan	connection	<code>disable_mobike;</code> <code>mobike_send_additional_self;</code> <code>disable_natt</code>							
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><code>fingerprint</code></td> </tr> </tbody> </table>	Package	Section	Options	strongswan	scep_cert	<code>fingerprint</code>		
Package	Section	Options							
strongswan	scep_cert	<code>fingerprint</code>							
<b>System</b>									
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><code>passwd_hash_algo</code></td> </tr> </tbody> </table>	Package	Section	Options	system	main	<code>passwd_hash_algo</code>		
Package	Section	Options							
system	main	<code>passwd_hash_algo</code>							
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

### 10.1 Release 25.05.22.001

Module	Short Description	Mantis
Dropbear	Fix dropbear intermittently failing to start on an interface	8502
	Pass default key file to dropbear and skip loading all other keys to avoid auth warning messages in syslog	8174
Ethernet	Fix dropped packets issue when LAN idle for 5+ minutes on GW1042 series	8690
	Fix manual <code>ifup</code> on non auto Ethernet and SFP interfaces	8507
Event System	Fix <code>ConfigChanged</code> event not being generated when using configuration audit	7132
Failsafe	Fix auth error messages in syslog when console disabled using failsafe feature	8401
Firewall	Optimise local IP checking using cache	8307
IECD	Improve IECD launch speed when using a large number of data points	8608
	Set Point configuration defaults after importing points from CSV file	8301
	Sort command points and data points from lowest to highest in <code>iec show stats</code>	8701
IECD/DNP3	Fix display of DNP3S uplink time in <code>iec show stats</code>	8417
	Fix DNP3S event queue handling so the event queue persists across the uplink up and down events	8931
	Fix error in displaying DNP3 app status	8348
	Fix incorrect reporting of DNP3S link status	8620
	Fix support for DNP3 Group 3 data point (double bit binary input)	8597
	Fixed incorrect conversion of DNP3 G42 variation 6 events to IEC104 TI 36	8527
	Fixed incorrect link assignment when sending dual point cmd IEC104S to DNP3M	8390
	Fixed issue with DNP3 analog input scaler for IEC104 TIs 9,11	8347
	Fixed sending ACT CON and ACT TERM to Scada Master for IEC104 slave to DNP3 master protocol conversion	8348
IECD/IEC104	Added Command Type ID validation to configured cmdpoint type id for IEC104S	8579
	Fix issues with IEC104 command point pass through dependencies	8617
	Improvements for IEC104 Server transmission queue for optimal upload performance.	8625
IECD/IEC61850	Fix IEC61850M SCL parser issue related to RCBs and datasets	8716
	Fix incorrect processing of INS variable during dataset poll	8794
	Fix IEC61850M reports trigger options handling	8872
	Fix an issue in SCL parser - converting DPS point types	8535
	Added default config values for IEC61850 master settings	8351
	Fix errors in mapping of IEC61850 DPS to IEC104 double point	8483

	Fix IEC61850M Read Instant Value option operation. <code>iec61850m readinst</code> option moved from <code>61850m</code> config section to global config section so it is applied to all points during SCL import	8574
	Fix incorrect handling of IEC61850 DPC data type by the IEC61850 client	8493
	Fix incorrect reading of APC value	8497
	Fix issue in handling Point Invalid bit when multiple IEC61850M sessions are connecting	8353
	Fix issues in IEC61850M SCL file parser when dealing with multiple Logical Nodes	8482
	Fixed reading IEC61850 analog inputs (instantaneous vs averaged values)	8293
	Incomplete Parsing of Data and Command Points for 30 61850M Links	8570
	Set <code>iec104_sbo</code> parameter based on the parsed value of <code>ctrlmodel</code> of IEC61850M SCL file	8467
IECD/Modbus	Added display of point value for MQTTS to Modbus point display in <code>iecd show points</code> command	8691
	Allow value of 0 for Modbus register address	8615
	Fix incorrect conversion from Modbus DI or CO to IEC104 Slave DPI (Type ID 3)	8380
	Fix incorrect reporting of point online (quality status)	8619
	Fix reporting of offline status on Modbus read errors - now Modbus read errors result in associated point coming offline	8529
	Fixed handling of online status bits in DNP3S to Modbus mode	8408
IECD/MQTT	Added default setting of MQTT port for VHMI	8531
	Fixed incorrect reporting of point value by VHMI over MQTT	8946
	Send point updates to dedicated topics if configured <code>web: system-&gt;iecd-&gt;server protocol-&gt;configure mqtt-&gt;topic-&gt;Append Name to Monitor Topic</code> <code>cli: iecd.port.mqtt_add_ptname_to_mon_topic</code>	8971
LLDP	Fix LLDP description delivery to peer	8627
	Fix LLDP neighbour establishment	8595
Management Users	Fix management user <code>allowed_pages</code> handling	8225
Mobile	Ensure correct LTE bands are selected when switching SIMs	8893
	Ensure Quectel initialisation doesn't require unnecessary module reboots	8859
	Fix crash for Quectel modules when SIM2 in during boot and SIM1 inserted after boot	8529
	Fix crash when band detection on Sierra Wireless WP76xx failed	8334
	Fix ICCID collection when SIM1 empty and SIM2 inserted to allow mobile interface to start correctly	8934
	Fix intermittent Unitac module connection after FOTA upgrade from module firmware from V13 to V14	8814
	Generate error message and handling if no supported LTE bands have been detected on a mobile module	8370

Multiwan	Check if route exists before modifying to avoid modifying a route for an incorrect interface. Fix issue where multiwan is modifying/removing routes for interfaces that are valid	8282
	Clear conntrack table when routes are changed to avoid stale connections	8256
	Fix default route losing gateway metric after recovery	8329
	Fix issue restoring default gateway metric when interface recovers	8282
	Fix mobile interface losing IP address after USB restart via command line or via Connect Watch <code>Interface restart</code> failure action	8754
	Fix crash due to module separation	8435
	Fix pre-empt functionality (broken in 25.04.35.000)	8575
	Log shell commands at debug level	8332
	Ping failure not recorded when pings dropped due to iptables rules	8545
Network	Split multiwan route management, health check and state management into separate modules	8327
	Remove IP address display if interface is down using <code>network_status</code> command	6763
OpenVPN	Fix multiple OpenVPN tunnel establishment without the need for process restart	8478
	Fix Openvpn tunnel interface failing to get IP address with TPM stored keys	8822
	Fix support for multiple tunnels	8316
SCEP	Fix issue due to empty <code>cacert</code> option value that could cause SCEP to fail to pull certificate on <code>strongswan</code> reboot	8885
	Fix system clock changing to certificate expiry time on certificate retrieval	8871
	Strongswan will now skip connections that require certs that are retrieved via SCEP should those certs not be available yet	8377
SNMP	Firewall Zone drop event now available in <code>VA-TRAPS-G02</code> MIB file	8829
Strongswan	Fix <code>ipsec statusall</code> crash when multiple peers connect to a single connection with <code>remoteaddress</code> configured as <code>%any</code> and an unspecified <code>remotelan</code>	8785
	Fix strongswan file permissions for IPsec XAUTH with PAM	8802
Syslog	Fix <code>misc nmea</code> kernel error messages in syslog	8533
System	Ensure <code>/etc/passwd</code> is updated when option <code>linuxuser</code> is set to no	8171
	Ensure <code>/etc/rollback</code> directory is automatically created and fix rollback from active update to altconfig target	8621
	Factory reset from web UI when force password present in factory config forces user to reset password on next log on.	8974
	Fix configuration error message due to obsoleted <code>openvpn_recipes</code> package	8811
	Fix incorrect config file errors when running configuration sanity check <code>sanity_check.sh</code>	8732
	Improve firmware validation to cover both kernel and main image before flashing to altimage	2882
Web	Define link colour for dark mode	8099

	Do not show DLMSD or COSEM configuration if no serial interface present	8061
	Fix menu items when they don't fit the menu width	8546
	Fix web UI becoming unresponsive when HTTPS status page left open in browser	8695
Web/Administration	Remove Upload private keys to TPM button since now handled via Certificate Management page	8235
Web/AT Command Service	Enhancements to AT Command Service web configuration and refresh of AT service status to refresh every 5 seconds	8238
Web/Certificates	Fix typo on HTTPS Certificate label	8891
Web/Connection Watch	Fix incorrect Connection Watch status display on web UI when there are underlying configuration issues	8569
Web/Cwatch	Ensure ICMP jitter options are only present on web UI when method <code>icmp</code> is selected	6973
	Fix cwatch status showing as disabled when enabled	8837
Web/GPS	Replace GPS with GNSS	
Web/HTTP Server	Remove configuration options that are not required from web UI, fix default values and split configuration into tabs	8397
Web/IEC101RTR	Fix IEC104 W option description in IEC104_LINK. Was previously incorrectly labelled IEC104 K	8436
Web/Interface	Fix issue when creating an interface with a device already assigned to another interface	4072
	Fix RECONNECT button press stalling the web UI until the interface has finished connecting	8982
Web/IPSec	Fix crash when accessing Authentication tab on web UI	8582
	Fix IPSec status display for multiple child tunnels	8444
	Fix IPSec status page display after disabling IPSec	8844
	Fix misleading preshared key ID selector label	8349
	Fix to ensure connection tab labels contain correct tunnel names	8729
	Fix Web UI incorrectly saving default values for IPSec Connection Additional Local and Remote Auth options	8801
	IPSec status now refreshes every 5 seconds	8464
	Removed cert file upload from strongswan web UI – now handled on certificate management page.	8464
	Reordering of configuration into separate tabs and removal of certificate file upload. Certificates are now handled in dedicated Certificate Management page.	8464
	Strongswan connection setting no longer removed when disabled via the web UI	8828
	IPsec status now displays multiple subnets for IKEv2	8352
Web/Mobile	Fix 3G roaming manager custom sort script option when Roaming Sort Order is <code>none</code>	8991
	Fix missing band selection in web UI for Hucom mobile module	8372

	Fix error on Mobile Manager page when using RFD mobile module - Hucom (WeTelecom) WPD-600N	8358
Web/Multiwan	Fix multiwan configuration using web UI when <code>main</code> configuration section is missing in config	8569
	Multiwan now stops correctly when disabled via the web UI	8085
Web/PoE	Only show status for ports supported on hardware	8356
Web/Power Monitor	Fix web UI default value for power monitor enabled field	8633
Web/Rollback	Fix rollback configuration through web UI when no options exist in configuration	8621
Web/Scada	Add missing IEC61850 datasets and control block configuration	8696
	Add MQTT server option dependencies for MQTT Number of Control Vars and MQTT Payload Format configuration	8682
	Add note to Data point descriptive name field to inform of 39 character limit	8616
	Change <code>modbus_regtype</code> command type import from string to numerical	8684
	Fix incorrect display of value for IEC104S to Modbus TI 9, 3 and HR, DI	8385
	Add reminder on web UI to save config when changes made on IECD pages	8052
	Added quality column and data point quality reporting to IECD status in web UI	8406
	Added IEC61850 to RTU protocols list for IEC104 command point	8213
	Added missing DNP3 group3 point type to data point in the web UI	8330
	Added missing Echo enable configuration option for CRSD	8954
	Added missing IECD options to web UI	8764
	Changed MQTT TLS Verify Depth to a dropdown list instead of integer	8707
	Description changed to reflect the fact that IEC61850 SCL file import only works with SCADA side protocol set to IEC104	8353
	Fix configuration of IEC104 Auth Exp Key Wrap Algo option	8718
	Fix data polling delays for IEC61850M to IEC104S protocol conversion when using multiple RTUs with large number of data points	8672
	Fix display of Integrated Totals IEC104 type ID	8656
	Fix IEC104 Master Link 2 tab option visible when only Link 1 is enabled	8765
	Fix issue in converting 104 setpoint float to Modbus 64 bit commands	8655
	Fixed data points in IECD status page for MQTT	8688
	Fixed incorrect processing of Modbus bitmap point type for DNP3S case	8675
Fixed Modbus point quality not updating in web status	8662	
Fixed point event queue overflow for IEC61850M to IEC104S protocol conversion for data points greater than 127	8560	
IECD Slave changed to IECD Server	8894	
Implemented missing command conversion from IEC104 Setpoint Float to Modbus	8614	

	Moved IEC104 health point configuration from Multi-master mode tab to new Health tab	8686
	Remove popup warning prompts users to save configuration on subpage	8587
	Update description for IEC61850M Read Instant Value	8821
	Update descriptions for MQTT server options	8680
	Updated IEC104M point field descriptions	8480
Web/SCEP	Fix error on UI after certificate deletion	8997
	Fix SCEP client status showing correctly	8835
	Fix SCEP status display in the web UI	8835
	SCEP request now initiated after <code>Save &amp; Apply</code> via the web UI	8377
Web/SSH	Fix host key algorithm description to note that only RSA algorithms are advertised by the SSH server when no algorithm is selected	7312
Web/Status	Added mobile overview and routing table to web UI status overview page	6965
	Ensure AT Command Service status is not present when disabled	8862
	Ensure Connection Watch status is not present when disabled	6966
	Ensure Data Usage status is not present when disabled	6966
	Ensure GNSS status is not present when disabled	8858
	Suppress link local IPv6 addresses in routing table overview	6965
Web/UDS	Added missing <code>none</code> value for script type to allow loading a pure text file	8989
	Do not remove blank lines from scripts	8990
	Support UDS gzip encoding configuration via web UI	8368
Web/VRRP	Fix <code>Track Interface</code> configuration as <code>list</code> type for proper operation	8637
Web/Weconnect	Enforce entering required Weconnect parameters	8634

## 10.2 Release 25.04.57.000

Module	Short Description	Mantis
BCP	Fix BCP crash upon receipt of IPv6 frame	8116
Ethernet	Fix Ethernet ports failing to connect when switching from bridge to port separation on GW6650V series	8305
Event System	Fix syslog message sending to multiple IP address	8046
Firewall	Fix broken protocol values ( <code>igmp</code> , <code>eigrp</code> , <code>ax.25</code> , <code>etherip</code> , <code>ipcomp</code> , <code>vrrp</code> , <code>l2tp</code> , <code>isi</code> , <code>sctp</code> , <code>fc</code> ) used by firewall option <code>proto</code>	7906
	Truncate zone names > 12 chars to avoid breaking firewall	7791
GPS	GPS error messaging improved by using error messages instead of error numbers	6660
GRE	Prevent starting GRE interface if parent interface is missing	8103
HTTP Client	Fix chunk size addition when reporting download status to Activator when using Chunky Downloads that could result in download failure	8023
IECD	Fix parsing of AI scaler when importing data points from CSV file	8199

	Improved data points CSV import feature	8191
IECD/ IEC104 Slave	Fixed issue with sending End of Initialization message in IEC104 slave	8233
IECD/ IEC61850	Fixed TCP connection drop on IEC104 clock sync processing	8211
IECD/DNP3	Fixed issues in applying scaler to negative MODBUS value for DNP3 to MODBUS protocol conversion	8207
IECD/Modbus	Support Modbus Slave to IEC104 Master command conversion for Set Point Float	8182
IECD/MQTT	Added support for Type ID 20 for IEC101 to MQTT protocol conversion	8135
	Fixed incorrect conversion of IEC101 double points to MQTT	8126
	Fixed issues with converting MQTT to IEC104 Master TypeIDs 9, 13, 48 and 50	8176
L2TP	Fix L2TP initialisation	8035
	Fix privileges which left PPP in a bad state	8071
Mobile	Correctly identify Unitac ML620DE and ML620EU modules in diagnostics. Previously both identified as ML620EU.	8166
	Fix bug introduced in 25.04.26.000 which prevented routers with Quectel modules establishing connection depending on certain operator checks	8247
	Fix issue with Telit CE910-SL CDMA module not establishing mobile link	8227
	Fix SIM slot 2 3V/5V issue on Merlin series with Sierra Wireless WP7611 processor	8142
	Fixes to ensure Unitac modules are initialised correctly	8093
	Only toggle the RF disable line when module is not present on the USB bus to avoid issues with correct phy detection. This fixes issues with SIM7070E starting on boot.	8114
	Set minimum firmware software version for Quectel EM060 module to prevent rollback to unsupported firmware	8088
Monitor	Stop flushing conntrack table every time a mobile connection fails to reconnect	8277
	Fix Monitor SSH access for SLA uploads	8175
Multiwan	Fix issue where default gateway is lost on route change	8282
Network	Fix Ethernet interfaces on Merlin series intermittently failing to restart after a network restart command	8120
PPP	Allow PPP interface to be up without IP address	8229
Strongswan	Fix conntrack flushing for strongswan on tunnel change	8249
Syslog	Fix bad values intermittently generated using firewall recent option	8055
VRRP	Fix VRRP transition when tracking mobile interface on Merlin series	8020
Web	Added Security-Policy-Header (CSP) to prevent clickjacking	8087
	Align reboot loading page with web UI theme	8036
	Change 'Modem configuration' to 'Mobile Manager Configuration'	7310
	Ensure lines are visible underneath the login fields	8072
	Fix formatting error messages in web UI	8255

	Fix interface colours after firewall zone update	8056
	Fix pixelated background images	8072
	Fix web UI crash when option ifname is missing from an interface	8050
	Remove welcome message from landing page	8072
	Removed hostname and Westermo logo and link from web UI log in page	8072
Web/Administration	Improvements to reboot scheduling	8125
Web/Firewall	Add option to Web UI to raise events on zone dropped/rejected traffic. web: cli: <code>firewall.zone.discard_event</code>	7769
	Ensure firewall zone names are no longer than 12 characters	7791
Web/GPS	Add option to select mobile device required to use GPS	7943
	Restore link to google maps	7403
Web/IECD	Add debug options for IEC61850 to web UI	8215
	Fixed IECD application restarting correctly when Save & Apply button used and IEC61850 connection is active.	8214
Web/Interfaces	Align up/down indicator centrally	7988
	Fix unable to select SIM1 or SIM2 from mobile interface SIM configuration option	8007
	Fix removal of dependent interfaces from configuration	8074
	Support default route and metric configuration on L2TP interfaces	8073
Web/Mobile Information	Mobile status information on the web now automatically refreshes every 5 seconds	8272
Web/PoE Status	Fix 500 error for unknown port power class when port is not physically present	8311
Web/Strongswan	Elliptic curve Diffie-Hellman algorithms can now be configured via the web UI when using IKEv2	7730
WiFi	Default hwmode changed from 802.11g to 802.11ng	3084
	Fix support for WPA2 with EAP-TLS1.3	8151

## 10.3 Release 25.04.35.000

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

## 10.4Release 25.04.19.000

Module	Short Description	Mantis
802.1x	Fix 802.1x authentication	4290
		7464
	Fix 802.1x restart after <code>ifup</code> or cable unplug/plug	7530
Activator	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 <code>OPTION_IA_N</code>	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>vrp</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	
	Multiwan	Log a warning that GNSS is not supported for SIMCom7070E mobile module
<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
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
OpenVPN		7325
		7326
	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 openvpn restart	7735
	OpenVPN interfaces are no longer deleted on ifdown/network 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 ifName truncation	6981
	SNMP <code>engineID</code> now has fixed value that persists through reboot	7355 7358
Strongswan	General improvements to memory usage	
Syslog	Fix syslog to use local time instead of UTC	7240
System	Adds the ability to define a COMMENT environment variable when invoking any process for display by <code>ps</code> command	7020
	Fix minimum machtype 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
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
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: security->firewall->traffic rules cli: firewall.rule.chain	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: services->mobile manager->lte	
Web/Realtime Graphs	Fix display of Realtime Graphs for mobile interfaces web: status->Realtime Graphs	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: security->ssh->Identity cli: dropbear.dropbear.Identity web: security->ssh->Verbose cli: dropbear.dropbear.verbose web: security->ssh->VRF cli: dropbear.dropbear.VRF	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

## 10.5 Release 25.03.43.011

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

## 10.6 Release 25.03.43.005

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	
Ethernet	Add <code>arp-scan</code> utility to DRS, ORK and SXL families for consistency with EDG family cli: arp-scan -l	5829
Firewall	Fix variable name clash in zone option presence test causing occasional restart issue Simplify firewall forwarding within a bridge by avoiding calls to iptables	
Firmware	Prevent downgrade of router firmware to a version that is incompatible with the on board Sierra Wireless module	6878
Mobile	Add <code>dmcli</code> tool for use diagnosing Unitac module problems on GW1042 models Ensure ARP is not turned off for the Unitac Ethernet interface causes problems with the firmware upgrade tool. Ensure NOARP flag is set on mobile Ethernet devices to avoid the ARP table from filling up with entries from the mobile connection Ensure the SMS format is set correctly and interfaces restarted after Verizon provisioning. Fix handling of 5G status when operating in an 5G SA network Fix to ensure the Verizon attach APN is set correctly Only restart interfaces when Network Initialisation was indicated in OMADM	6906 6676

	Switch to AT!GSTATUS to retrieve signal information for Unitac modules	
OpenVPN	Fix privileges in OpenVPN to allow automatic restarts and fix open SSL errors in WeConnect	6793
SNMP	Correct vaUciMib implementation so that it matches the previous implementation	6903
SNMP/GPS	Fix GPS heading in MIB from degrees to micro degrees	6901
System	Fix issues when config files have execute permissions set and configuration audit is enabled	
VLAN	Fix VLAN bridging on Merlin and GW6650V models	6768 6844
Web	Fix error message typo when SSL subsystem fails to initialise Print openssl errors when init, cert load or key load fail	
Web/ Interfaces	Avoid restarting all interfaces when adding new interface via web UI	6922 6923
Web/Cwatch	Fix display of bridge interface on Cwatch interface list	6824
Web/System	Restore javascript validation preventing underscores in system hostname	4555

## 10.7Release 25.03.43.000

Module	Short Description	Mantis
Activator	Fix Activator active update command returning incorrectly parsed IPv6 addresses	4727
BGP	Fix local VRF IP subnet not being advertised over WAN VRF using a BGP instance in the same VRF	6799
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 .1.3.6.1.4.1.2078.3.1.2.4.2 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
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## 10.8Release 25.03.03.000

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 <code>vam</code> 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"> <li>• 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)</li> <li>• <code>AT+COPS=?</code> timeout increased to 190 seconds</li> <li>• automatically retry a failed <code>AT+COPS=?</code> command if it fails within 15 seconds</li> <li>• <code>vam roaming</code> now includes scan duration in seconds</li> </ul>		

	Incorrect SINR reported for Quectel modules	5951
	Mobile connection no longer dropped when 2 <sup>nd</sup> antenna is disconnected when using Unitac modules	6446
	Prevent +CGEV: NW DETACH trigger warnings in the logs	6616
	Re-connect to network automatically if AT+CGATT=1 fails	
	Support new option to enable MIMO on Unitac modules (disabled by default). web: services->mobile manager->advanced->Enable MIMO for Unitac radio Modules cli: mobile.mobile.unitac_mimo_enabled	6499
	VA Mobile roaming diagnostic now shows roaming info for all modems by default cli: vam roaming	
Network	Ensure ifdown kills all ifup 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 ifup race condition on bridged interfaces	6265
QoS	Fix QoS initialisation	6560
Routing	Enable FRR vty_enabled 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 scep_cert 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 cli: list system.main.passwrdd_hash_algo	5001
	Fix auditing of DMVPN configuration using option audit_cfg	
	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-&gt;bgp-&gt;global settings-&gt;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

## 10.9 Release 25.02.14.033

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.	

## 10.10 Release 25.02.14.027

Module	Short Description	Mantis
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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 &lt;ifname&gt;</code> now correctly re-establishes when <code>&lt;ifname&gt;</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

## 10.11 Release 25.02.14.016

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

## 10.12 Release 25.02.14.010

Module	Short Description	Mantis
Activator	Added RADIUS support to active updates Information sent to Activator via <code>httpclient</code> now includes all previous values: <code>imei</code> , <code>sim1_iccid</code> , <code>sim2_iccid</code> , <code>hw_rev</code> , <code>sim1_imsi</code> and <code>sim2_imsi</code>	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 <code>sshd</code> 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 <code>base0</code> even if default output set to drop in firewall and dynamically add <code>strongswan</code> bypass policy rule	5758
	Fix default MAC address for Merlin4600 Ethernet ports	5740
	Fix LED port D behaviour on GW3300D	5869
	Restored missing <code>arp-scan</code> functionality on GW6600V <code>cli: arp-scan (ip - l)</code>	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 web: network->interfaces->L2TP->advanced settings->RX Speed cli: network.interface.l2tp_bps_rx	5769 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) Added Operator Code (5-digit MCC/MNC) and Cell ID to vam -a command	3278
	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 vam -a 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 va_mobile 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 through 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-&gt;openVPN-&gt;certificates-&gt;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

	<b>Add hotplug script debug logging option</b>	<b>5646</b>
	cli: system.main.hotpluglog	
	<b>Added -M option to ping for mtu discovery behaviour</b>	
	cli: ping <ip_address> -M PMTUD_OPT	
	<b>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.</b>	
	<b>Debrand web and command line interface</b>	<b>5498</b>
	<b>Fix crash in in uci list command</b>	<b>5596</b>
	cli: uci list	
	<b>Remove stale sshd service files causing issues with telnet access on GW6600V</b>	<b>5333</b>
<b>TACACS</b>	<b>Stpport for TACACS added to JKG family</b>	
<b>Web/BGP</b>	<b>Added BGP status page</b>	<b>5819</b>
	web: status->BGP	
<b>Web/BGP</b>	<b>Added missing options to web UI</b>	<b>5817</b>
	web: network->bgp->global settings->Maximum Dynamic Neighbours	<b>5818</b>
	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	

Web/Event System	Support for custom facility and target configuration options for syslog target 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	4739
Web/IPsec	Support configuration for FlexVPN via web UI web: services->ipsec->connection->Route Interface cli: strongswan.connection.route_interface web: services->ipsec->connection->FlexVPN Prefixes cli: strongswan.connection.flexvpn_prefixes	6000
	Support configuration of local cert via web UI web: services->ipsec->scep certificate->Local Certificate cli: strongswan.connection.localcert	6000
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 wb 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

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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 <code>web: services-&gt;http server-&gt;Redirect HTTP requests to HTTPS</code> <code>cli: uhttpd.main.redirect_https</code>	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

	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 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-&gt;system-general settings-&gt;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-&gt;wifi-&gt;interface configuration-&gt;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