

WESTERMO

GRQ Software Release Notes Merlin1043/3100/3400 Series

Release GRQ-25.05.58.000

Hardware Models	Merlin1043; Merin3100; Merlin3400
Revision	1.00.08
Approval status	Approved
Date:	02 April 2026
Brief description	Details the release of system software GRQ-25.05.58.000 for Merlin1043/3100/3400 series

1	Revision history	4
2	Release statement	4
2.1	Firmware information	4
2.2	Hardware platforms	4
3	Mobile module support	4
3.1	5G	4
3.2	LTE	5
3.3	LTE-450	5
4	Security fixes	5
5	Security vulnerabilities	6
6	New features	7
7	Deprecated features	10
8	Known issues	11
9	Problems resolved	12
9.1	General	12
9.2	Scada	14
9.3	Web UI	15
10	Appendix 1: New features history	17
10.1	Release 25.05.03.000	17
10.2	Release 25.04.78.000	18
10.3	Release 25.04.72.000	19
10.4	Release 25.04.57.001	21
10.5	Release 25.04.57.000	21
10.6	Release 25.04.51.000	21
10.7	Release 25.04.50.000	22
10.8	Release 25.04.29.000	23
10.9	Release 25.04.19.000	23
10.10	Release 25.03.43.011	27
10.11	Release 25.03.43.005	27
11	Appendix 2: Problems resolved history	29
11.1	Release 25.05.03.000	29
11.2	Release 25.04.78.000	31
11.3	Release 25.04.72.000	32
11.4	Release 25.04.57.001	34
11.5	Release 25.04.57.000	34
11.6	Release 25.04.51.000	35
11.7	Release 25.04.50.000	35
11.8	Release 25.04.29.000	37
11.9	Release 25.04.19.000	38
11.10	Release 25.03.43.011	41

11.11 Release 25.03.43.005..... 41

1 Revision history

Date	Revision	Description
30 October 2024	1.00.00	Release notes for GRQ-25.04.29.000
27 January 2025	1.00.01	Release notes for GRQ-25.04.50.000
31 January 2025	1.00.02	Release notes for GRQ-25.04.51.000
19 March 2025	1.00.03	Release notes for GRQ-25.04.57.000
23 April 2025	1.00.04	Release notes for GRQ-25.04.57.001
17 June 2025	1.00.05	Release notes for GRQ-25.04.72.000
14 July 2025	1.00.06	Release notes for GRQ-25.04.78.000
26 September 2025	1.00.07	Release notes for GRQ-25.05.03.000
02 April 2026	1.00.08	Release notes for GRQ-25.05.58.000

2 Release statement

GRQ-25.05.58.000 has formally passed internal acceptance and regression testing and is available for general release on hardware platforms as stated below.

2.1 Firmware information

Filename	Size (bytes)	Build Date	Checksum (md5)
GRQ-25.05.58.000.k03.image	21,557,248	02/04/2026	a0ef4d35c27ebaf370f433d3ad76d253

2.2 Hardware platforms

Hardware model	Details
Merlin1043	LTE/LTE450, 2xSIM, 2xGigE Ethernet interface, TPM and secure boot. Optional 2xDigital I/O
Merlin3100	5G/LTE/LTE450, 2xSIM, 2xGigE Ethernet interface, TPM and secure boot.
Merlin3400	5G/LTE/LTE450, 2xSIM, 4xGigE Ethernet interface, TPM and secure boot. Optional 2xRS232, 1xRS485, 2xDigital I/O, Analog Input, Second 5G/LTE/LTE450 radio with additional SIM slot, WiFi

3 Mobile module support

3.1 5G

Firmware	Code	Module	3G	LTE	5G
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25.05.57.000	QFB	Quectel RG255C-GL		LTE-FDD: 1,2,3,4,5,7,8,12,13,14,17, 18,19,20,25,26,28,30,66,7 0,71	Redcap NR SA: 1,2,3,5,7,8,12,13,14,18,20, 25,26,28,30,38,40,41,48,66 ,70,71,77,78,79
				LTE-TDD: 34,38,39,40,41,42,43,48	
25.04.50.000	PFO	Quectel RM520N-GL	1,2,4, 5,8,19	LTE-FDD: 1,2,3,4,5,7,8,12, 13,14,18,19,20,25,26,28,2 9,30,32, 66,71	1,2,3,5,7,8,12,13,14,18, 20,25,26,28,29,30,38,40,41 ,48,66,70,71,75,76, 77, 78,79
				LTE-TDD: 34,38,39,40,41,42,43,48	

3.2 LTE

Firmware	Code	Module	Cat	2G	3G	LTE
25.05.57.000	RFH	Telit Cinterion TX62-W-C	M	-	-	LTE-FDD: 1,3,8,20,28,31,72
	RFL	NetPrisma LUH33- WWD	4	850/900/ 1800/1900	1,2,4,5,6,8, 19	LTE-FDD: B1,2,3,4,5,7,8,12,13,18,19,20,2 5,26,28,66 LTE-TDD: B34,38,39,40,41
25.04.29.000	QFX	SIMCOM SIM7070E	M	850/900/ 1800/1900	-	1,2,3,4,5,8,12,13,14,18,19,20,2 5,26, 27,28,31,66,72,85,
	QFR	Quectel EG25G	4	-	1,2,4,5,6,8, 19	1,2,3,4,5,7,8,12,13,18,19,20,26, 28,38,39,40,41

3.3 LTE-450

Firmware	Code	Module	Cat	2G	3G	LTE
25.05.57.000	RFY	Quectel EG950A	4	-	1,2,4,5,8	LTE:FDD: 1,2,3,4,5,7,8,20,28,31,66,72,87 LTE-TDD: 28,40,41
25.04.57.001	PFN	Unitac ML620DE	4	-	-	LTE:FDD: 3,7,20,72
	PFT	Unitac ML620RU	4	-	-	LTE:FDD: 3,7,20,31 LTE-TDD: 40
	PFM	Unitac ML660PC	4	-	-	LTE:FDD: 3,20,87

4 Security fixes

Firmware	Module	Description	Severity	Mantis
25.05.57.000	dropbear	Support SSH-ed25519 host key	Low	8933
	luci	Mask password text in web UI for SCADA applications	Low	9159 9276

	system	Force root password change on first log in for routers shipped with default credentials	Low	8743
25.05.03.000	system	Fix file security permissions	Low	6406
		Mask sensitive information in audit logs	Low	8365
		Support data at rest encryption	Low	6947
25.04.50.000	luci	Added Security-Policy-Header (CSP) to prevent clickjacking	Low	8087
	pam_tacplu s	Avoid potential freeing of non-address Fixes CVE-2020-27743 and CVE-2016-20014	Medium	8002
25.04.29.000	openVPN	Updated to version 2.5.11 Fixes CVE-2022-0547	Low	6238
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

5 Security vulnerabilities

Module	Short Description	Severity	Mantis
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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	Medium	7301

6 New features

BGP			
Multiple route maps	Support multiple rules to a BGP route map using BGP route map name option		9179
	<u>Package</u>	<u>Section</u>	
	bgpd	routemap	name
Dropbear			
Ed25519 support	Support SSH-ed25519 host key for SSH server authentication		8933
Firewall			
Validation	Firewall validation error information now logged to syslog with rule name		9004
Mobile			
Quectel EG950A	Support Quectel EG950A mobile module		
Telit Cinterion support	Support Telit Cinterion TX62-W-C LTE-M mobile module		8988 9118 9207
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>	
	system	timeserver	initial_sync_only_enabled
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									
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>managemen</td> <td>user</td> <td>change_password_on_first_login</td> </tr> <tr> <td>t_user</td> <td></td> <td></td> </tr> </tbody> </table>	Package	Section	Options	managemen	user	change_password_on_first_login	t_user			
Package	Section	Options									
managemen	user	change_password_on_first_login									
t_user											
Password Hint	New option to show password requirements when password change is enforce.	9157									
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>system</td> <td>system</td> <td>password_change_hint</td> </tr> </tbody> </table>	Package	Section	Options	system	system	password_change_hint				
Package	Section	Options									
system	system	password_change_hint									
Password History	Support configuration of password history depth	9398									
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>system</td> <td>system</td> <td>password_history_depth</td> </tr> </tbody> </table>	Package	Section	Options	system	system	password_history_depth				
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system	system	password_history_depth									
PPP											
Upstream Rate Limit	New option to rate limit upstream bandwidth on a PPP link.	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>upstream_rate</td> </tr> </tbody> </table>	Package	Section	Options	network	interface	upstream_rate				
Package	Section	Options									
network	interface	upstream_rate									
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 Groups	Added support for DNP3 Groups 110 and 111	9157									
IEC60870-5-103 client	Support IEC60870-5-103 Master to DNP3 Slave protocol conversion web: scada->iecd->Master Protocols->Master Protocol	8437 9090 9089 9212									
MQTT Broker	Support a minimal implementation of MQTT broker web: scada->mqtt broker	9155									
MQTT client ID check	Support Client ID check for user accounts	9283									
MQTT remote address filter	Support configuration for checking client source IP address against configured IP address in the user record	9281									
MQTT Master	Support MQTT Master protocol conversion web: scada->iecd->Master Protocols->Master Protocol	9156									
MQTT parsing	Support parsing out multiple values from MQTMM publish payload	9354									
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 integer data types	Support SNMP data types - Gauge32, Counter32, TimeTicks and Opaque - for SNMP master protocol conversion	9061 9075									

SNMP Master Protocol	Support SNMP protocol as a new master RTU protocol	8928
SNMP TCP Routes	Support TCP Route block to SNMP Master protocol conversion to allow multiple instances	9275
SNMP to DNP3	Support conversion from SNMPC and FILE to DNP3 octet strings	9158
Virtual Points	Support IECD virtual points.	9086 9088
SNMP		
VA-TRAPS-G02	Added NTP query failed to VA-TRAPS-G02 MIB	7313
System		
Factory Reset	New factory reset from command line with customised reset behaviour control <code>cli: va_factory_reset.sh</code>	8974
	Report factory reset and decommissioning events to system log and all connected consoles	9419
Merlin1043	Support new Merlin1043 hardware series	8987 9333
Merlin3400	Support new Merlin3400 hardware series	7476
Smart EMS	Support Welotec Smart EMS Management System	8489 9076
Terminal Server		
Serial to GRE mirroring	Support mirroring serial data to <code>gre-tap</code> transport mode interface	9370
UDS		
AT Command scripts	Support new script type <code>CRSD</code> to execute scripts in response to AT commands <code>web: services->user-defined scripts->execution type 'CRSD script'</code> <code>opt: uds.script.exec_type 'crsd'</code>	8873
Web UI		
Administration	Move password hash algorithm configuration option from <code>system->system</code> to <code>Security->administration</code>	9319
	Support configuring password regex via web UI	9178
	Support user password change error feedback	9314
Certificates	Support Certificate Signing Request (CSR) generation	9180
Decommission	Added warning pop up for confirming Reset for Decommissioning press	8677
Dynamic DNS	Support missing <code>Use HTTPS and CA Certificate file or path</code>	9195
	Split web UI dynamic DNS configuration into tabs	6973

Firewall	Web UI now reports invalid firewall rule configuration changes. Port options are now only visible when TCP/UDP protocol is selected.	9004
Inventory	Support SNMP inventory configuration web: system->snmp->Inventory web: system->snmp->IF Table	9000
Log in	Support force password change via web UI	8743
Mobile Manager	Allow adding/removing mobile manager sections	9222
Mobile Roaming Manager	Support Mobile Roaming Manager network configuration via web UI web: network->interfaces->mobile interface->Roaming Manager	6976
Multiwan	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
Scada	IECD Slave configuration changed to IECD Server	8894
	Support upload of certificates for MQTT server web: scada->iecd->server protocol->configured mqtt->TLS	8951
SCEP	Add information on SCEP enrolment progress to status page	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
Status	Move logs – syslog, interface log, changes, dmesg - onto a status page with multiple tabs	9040
STP Status	Added Spanning Tree Protocol status of bridge interfaces web: status->stp status	8791
Time Synchronisation	Support NTP time sync on boot configuration web: system->time synchronization->Enable Boot-Time Only Time Sync	8929

7 Deprecated features

Firmware	Package	Description	Mantis
25.05.47.000	Mobile	Removed support for Mobile Roaming Templates. Now supported using Roaming Manager feature.	6093
	RUG	Removed support for RUG firmware family	7312
	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

25.04.78.000	OpenVPN	Removed <code>openvpn_recipies</code> package	8504
25.04.72.000	mobile	Removed support for downloading a factory config via a SIM card	8373
	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
25.04.50.000	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

8 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
GPS	No GPS support for SIMCOM7070	
IECD/ IEC61850	IEC61850 master does not send <code>CreateDataSet</code> command to create dynamic datasets.	8799
	IEC61850 master RCB reference is always set to unbuffered mode (RP)	8798
Mobile	Do not display RSSI in mobile stats for 5G mobile modules	7060
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
SCEP	Syslog does show a misconfigured DN in SCEP	8485
Strongswan	Strongswan memory footprint increases slowly with tunnel restart	5866
Syslog	No web UI support for syslog filter rules	3705
System	Misleading diagnostic message <code>'failed to kill...for device portWAN'</code> generated on network restart or <code>ifup</code>	7817
	SSH MFA not being enforced	8047
TPM	When <code>uhttpd</code> certificate is erased a new one is not automatically generated when the key is stored in the TPM	8284
Web	802.1x supplicant missing options <code>method</code> , <code>client_key</code> and <code>client_key_passwd</code>	9324
	DNP3S data points not displayed on IECD status page	9047
	GRE keepalive options missing from web UI	8840

IEC61850M link loading issue when SCL file is uploaded	8558
Merlin3100 presents configuration in web UI for SCADA features not supported on this hardware model	8419
SCEP certificate status not updated upon deletion	8998
SCEP client missing option <code>key_path</code>	9415
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 management users via web UI	5503
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 load .P12 or .PXF certificate files via the web UI	8519
Web intermittently failing to load when WeConnect is active	7808

9 Problems resolved

9.1 General

Module	Short Description	Mantis
Activator	Fix Activator delivering the same password for a user when not present in <code>/etc/passwd</code> which could result in <code>management_users</code> password being set to <code>'x'</code>	9398
	Fix issue caused by space separated cipher list causing Activator active updates to fail when TLS Ciphers are specified in the HTTP Client configuration	9203
AT Command Interpreter	Fix AT Command Interpreter process restart using <code>/etc/init.d/crsd restart</code>	9189
	Fix <code>ATH0</code> handling	8955
	Fix error on modem start with <code>+++</code> in command phase followed by <code>AT</code>	8956
Certificates	Fix private key loading in PKI command	9072
Connection Watch	Fix Connection Watch operation on a VTI interface	8877
DHCP Client	Fix DHCP client intermittently not installing the default route on a when ports are bridged	8823
	Update DHCPv6 address and timers when processing a response	9093
Dynamic DNS	Fix Dynamic DNS correctly detecting the IP address when using Unitac mobile modules	9148
	Fixed incorrect permissions preventing Dynamic DNS process (<code>ddns</code>) from starting	8803
Ethernet	Fix broken Ethernet operation in Merlin series when upgrading Merlins using legacy <code>va_switch</code> <code>config_section</code> for mapping the Ethernet ports	8960

	Fix issue when using a bridge configuration the router intermittently fails to detect link on one of the physical bridge ports, even though the cable is physically connected.	9358
Event System	Fix NTP event generation	7098
IPSec	Drop traffic matching policy when IPSec tunnel is down	8479
	Fix conntrack flush on IPSec tunnel up	9304
	When an IPSec secret change is detected on execution of <code>/etc/init.d/strongswan reload</code> , a full strongswan restart is forced	9077
LLDP	Get Chassis ID to serial number	9199
	Run on all interfaces when option <code>interfaces</code> is empty.	9198
Mobile	Ensure correct LTE bands are selected when switching SIMs	8893
	Ensure Quectel initialisation doesn't require unnecessary module reboots	8859
	Ensure recipe module restart is ignored on models with single radio Sierra Wireless modules and add syslog message to indicate that <code>/etc/init.d/usb_startup</code> has no effect.	9103
	Ensure Unitac module is in automatic operator search mode after switching SIM to allow connection to new operator network	9211
	Fix APN passwords being shown in syslog when special characters are used in the username or password for Unitac modules	9282
	Fix crash with Unitac modules when default APN is enabled but no APN specified	9343
	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
	Fix IP detection for Telit TX62-W-C mobile module	9118
	Fix signal strength and SIM LEDs on GW1032 CDMA model	9247
	Fix status pattern and add 60 second post download delay for flash write execution when performing Verizon LWM2M FOTA upgrade	8927
	Improve speed of connection establishment for Telit TX62-W-C module	8988
	Improvements to Unitac module upgrade from <code>ML620EUV13_RELEASE_2024020</code> to <code>ML620EUV14_RELEASE_20250627</code> firmware to fix issue with no data connection after upgrade until reboot	8814
	Start interfaces in ascending context order	9128
Monitor	Removed <code>mcc/mnc</code> code to Monitor in place of obsoleted <code>operator</code> field	9337
Network	Improve static route handling when interface configuration changes	8062
OSPF	Increase the maximum number of <code>igmp_max_memberships</code> from 20 to 128 to fix issues with OSPF configurations with greater than 20 peers	9228
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 SCEP certificate status not updated upon deletion of TPM keys	9050
	Fix system clock changing to certificate expiry time on certificate retrieval	8871

	Strip white spaces from CA fingerprint entry before use to allow configuration option to have white spaces for readability.	9008
	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 VA-TRAPS-G02 MIB file	8829
Syslog	Change log level for jffs2 summary warning from notice to debug	9132
	Fix DNS request log entries filling system log	6625
	Fix syslog remote filter issue including hostname in matches	9215
	Remove sensitive data overwritten syslog messages	9315
System	Allow password history depth of zero	9388
	Factory reset from web UI when force password present in factory config forces user to reset password on next log on.	8974
	Fix password hint showing correctly for SSH login	9321
	Fix management users max_passwd_age option forcing a password change on every log in	9299

9.2 Scada

IECD	Fix iec show point output showing syntax error	7212
DNP3	Allow configuration of DNP3S static and event variations per point and show correct variations per group	9254
	Ensure DNP3 to MQTTS points are sent only on value or quality change	9267
	Fix analog output event processing for DNP3S Group 40/41/42	9255
	Fix DNP3 client startup with support for unsolicited mode	9192
	Fix DNP3S event queue handling so the event queue persists across the uplink up and down events	8931
	Fix IEC101 to DNP3 unsolicited messages	9272
	Fix incorrect and missing cases of DNP3S Double 64 bit, analog input and analog output support	9252
	Fix incorrect conversion of DNP3-M G3/G4 to Modbus-S DI/CO	9262
	Fix incorrect conversion of floating point objects from DNP3M to MQTTS	8181
	Fix issues processing MQTTS to DNP3M binary and analog output commands	9265
IEC101	Fix issues with points online offline reporting for IEC101M to Modbus-S scenario	9384
	Fix IV bit handling during IEC101M GI	9381
IEC103	Fixed format spec of iec103m_gi_time_secs in config table	9102
IEC104	Fix incorrect reporting of integrated totals in response to counter interrogation command	9383
IEC61850	Fixed incorrect processing of INS variable during dataset poll	8794
	Fix IEC61850M reports trigger options handling	8872
Modbus	Fixed incorrect online-offline reporting of Multi RTU Modbus points	9057

	Modbus TCP - invalidate only points belonging to specific slave address rather than all points	9073
MQTT	Add support for Client ID check to user accounts	9283
	Added configuration and checking for client source IP address against configured IP address in the user record	9281
	Added missing handling of QoS=1 publish messages	9347
	Fix incorrect handling of MQTT to Modbus 32-64 bit float writes	9388
	Fix issues with MQTT initialisation script <code>/etc/init.d/mqttd start</code>	9280
	Fixed a crash caused by processing SNMP command result	5724
	Fixed incorrect reporting of point value by VHMI over MQTT	8946
	Send point updates to dedicated topics if configured web: system->iecd->server protocol->configure mqtt->topic->Append Name to Monitor Topic cli: <code>iecd.port.mqtt_add_ptname_to_mon_topic</code>	8971
RTUD	Added missing handling of online-offline status bit when reporting GPIO to DNP3	9038

9.3 Web UI

Administration	Fix log in banner description	9187
	Log in banner configuration change now takes effect after Save&Apply instead of reboot.	9191
AT Command Service	Fix broken link on Custom AT commands button web: <code>services->AT command service->advanced</code>	9068
	Fix Serial Failover description in Main Settings	9287
	Support missing options <code>pre_dial_timeout_ms</code> and <code>pre_dial_age_timeout_ms</code>	9205
BGP	Ensure that the routing section for BGP is named <code>bgpd</code>	8078
Certificates	Fix typo on HTTPS Certificate label	8891
Ethernet	Fix Ethernet port counters on web UI	9074
Firewall	Fix 404 Not Found error when adding protocol <code>Other</code> on the Port Forwards page	9196
	Only display firewall rule Source/Destination Port fields when TCP/UDP protocol	9004
General	Ensure the web UI does not create different config sections with the same name	9081
	Fix user log in when password contains =	9309
	Fix web UI caching which is reducing performance	9064
	Fix Web UI CSS caching to improve web UI performance	9064
	Improvements to performance of web UI when waiting for a response from a web client that has closed the connection	9037
Interface	Support missing <code>gretap</code> , <code>gre6</code> and <code>gretap6</code> interface protocol configuration	9101
	Fix <code>RECONNECT</code> button press stalling the web UI until the interface has finished connecting	8982

IPsec	Fix error on web UI when creating a new IPsec connection	9035
	Fix IPsec status page display after disabling IPsec	8844
	Only show aggressive mode option when IKEv1 selected	9130
	Remove 30 character limit from strongswan PSK secret and selector fields when configuring via web UI	9107
Mobile	Do not show SMS options if module does not support SMS	9342
	Fix 3G roaming manager custom sort script option when Roaming Sort Order is <code>none</code>	8991
Network	Show loopback configuration on web UI (removed in 25.05.03.000)	8876
Roaming Manager	Support missing <code>roaming_service</code> option values <code>[cdma 5g any]</code>	9049
Scada	Added missing Echo enable configuration option for CRSD	8954
	Fix Command Point TypeID dropdown menu missing TI 47 (Server 104) for IEC101S	9377
	Fix description on RTUD main page	9274
	Fix issue with MQTT TLS certificate file uploads	9278
	Fix issue with web UI points not showing in IECD Status for Modbus-S to DNP3-M scenario	9261
	Fix MQTT master points not showing in the IECD status	9349
	IECD description now updated to include new protocol conversions	9359
	IECD Slave changed to IECD Server	8894
	IECD status page now correctly displays GROUPS 110 and 111	9345
	Improved reporting of points online-offline status (DNP3-M to MQTTs)	9266
	Improvements to IECD showing points on status page	9213
	Support RTUD configuration on platforms with Digital IO's	9248
	Update description for IEC61850M Read Instant Value	8821
SCEP Client	Add information on SCEP enrolment progress to status page	8464
	Fix error on UI after certificate deletion	8997
	Fix typo in description for Renewal and Retry options	9414
	Fix SCEP status display in the web UI	8835
	SCEP request now initiated after <code>Save & Apply</code> via the web UI	8377
SNMP	Fix SNMP web UI configuration when options not already present in configuration	9390
SSH	Fix host key algorithm description to note that only RSA algorithms are advertised by the SSH server when no algorithm is selected	7312
Status	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
	Only show VRRP status when enabled	6966
Terminal Server	Fix terminal server not showing for firmware families that do not support SCADA	9289

UDS	Added missing 'none' value for script type to allow loading a pure text file	8989
	Do not remove blank lines from scripts	8990

10 Appendix 1: New features history

10.1 Release 25.05.03.000

Connection Watch																						
Jitter and latency check enable	Add enable/disable configuration for cwatch ICMP jitter and latency checks	8095																				
	<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>icmp_jitter_check_enabled; icmp_latency_check_enabled</td> </tr> </tbody> </table>	Package	Section	Options	cwatch	watch	icmp_jitter_check_enabled; icmp_latency_check_enabled															
Package	Section	Options																				
cwatch	watch	icmp_jitter_check_enabled; icmp_latency_check_enabled																				
Event System																						
Multiwan events	Added multiwan class and events for group start, interface acquisition and interface state changes to the Event System	8807																				
	<table border="1"> <thead> <tr> <th>Class</th> <th>Id</th> <th>Name</th> <th>Severity</th> <th>Event Template</th> </tr> </thead> <tbody> <tr> <td>multiwan</td> <td>1</td> <td>MultiwanGroupStart</td> <td>informa</td> <td>Multiwan group %{p1} started with %{p2} interfaces</td> </tr> <tr> <td>multiwan</td> <td>2</td> <td>MultiwanInterfaceAcquired</td> <td>informa</td> <td>Multiwan group %{p1}: interface %{p2} initial state is %{p3}</td> </tr> <tr> <td>multiwan</td> <td>3</td> <td>MultiwanInterfaceStateChange</td> <td>informa</td> <td>Multiwan group %{p1}: interface %{p2} was %{p3} now %{p4}</td> </tr> </tbody> </table>	Class	Id	Name	Severity	Event Template	multiwan	1	MultiwanGroupStart	informa	Multiwan group %{p1} started with %{p2} interfaces	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}	
Class	Id	Name	Severity	Event Template																		
multiwan	1	MultiwanGroupStart	informa	Multiwan group %{p1} started with %{p2} interfaces																		
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}																		
HTTP Server																						
TLS cipher configuration	Added support for limiting allowed TLS ciphers	7121																				
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>uhttpd</td> <td>uhttpd</td> <td>tls_ciphers</td> </tr> </tbody> </table>	Package	Section	Options	uhttpd	uhttpd	tls_ciphers															
Package	Section	Options																				
uhttpd	uhttpd	tls_ciphers																				
Multiwan																						
Jitter and latency detection	Support new options to specify maximum permitted jitter and latency for a multiwan interface	8435																				
	<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>icmp_jitter_check_enabled; icmp_max_jitter; icmp_latency_check_enabled; icmp_max_latency; icmp_max_average_latency</td> </tr> </tbody> </table>	Package	Section	Options	multiwan	interface	icmp_jitter_check_enabled; icmp_max_jitter; icmp_latency_check_enabled; icmp_max_latency; icmp_max_average_latency															
Package	Section	Options																				
multiwan	interface	icmp_jitter_check_enabled; icmp_max_jitter; icmp_latency_check_enabled; icmp_max_latency; icmp_max_average_latency																				
Password Management																						
Root password lifetime	Extend password lifetime support to cover root management users	8749																				
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																				

Scada				
Health Point multiple RTU tracking	Added support for health point list to track data link state of multiple RTUs			8687
	Package	Section	Options	
	iecd	point	iec104_track_rtu_hp_ioa	
System				
Overlay Encryption	Added support for data at rest encryption. Note: Once overlay encryption is enabled, firmware cannot be rolled back to a previous firmware version.			6947
	Package	Section	Options	
	system	failsafe	encrypt_overlay	
Web UI				
Authentication	PAM configuration moved to Security section web: Security->Authentication			8787
Connection Watch	Split web UI watch configuration into tabs			7311
Customised factory reset	Added Factory Reset, Factory Reset and Certificate Deletion and Reset for Decommissioning operations web: System->Flash Operations			8403
Event System	Add Ethernet LinkUp/LinkDown events to event filters list			8792
HTTP Server	Support disabling web UI option in web UI web: Security->HTTP Server->Enable this web UI cli: uhttpd.main.webui_enabled			8730
OpenVPN	Support push routes for OpenVPN server mode web: VPN->OpenVPN->Advanced->Push cli: list push 'route <ip> <mask>'			8712
Network	Remove loopback interface from web UI			7311

10.2Release 25.04.78.000

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	
Scada				
IEC104S ActTerm	Added ability to skip waiting for ACTTERM message as some clients and servers do not support it			8624
	Package	Section	Options	
	iecd	port	iec104_no_tx_act_term; iec104m_nowait_act_term	

Web UI		
Certificate Management	New web UI page added for management of certificates and keys web: security->certificates	8464
GNSS	Add sky view for GNSS satellites	8537

10.3Release 25.04.72.000

Cwatch		
Jitter and latency detection	Support new options to specify maximum permitted jitter and latency <u>Package</u> <u>Section</u> <u>Options</u> cwatch watch icmp_max_jitter; icmp_max_latency; icmp_max_average_latency	8095
Ping interval configuration	Support configuration of cwatch ping interval. Previously hardcoded to 10 seconds. <u>Package</u> <u>Section</u> <u>Options</u> cwatch watch icmp_interval	7350
Dropbear		
SSH algorithm configuration	Support configuration of cipher, host key and key exchange algorithms for SSH connections <u>Package</u> <u>Section</u> <u>Options</u> dropbear dropbear cipher; sign_algo; kex_algo	8344
HTTP Client		
SSL cipher configuration	Added support for configuration of supported SSL ciphers <u>Package</u> <u>Section</u> <u>Options</u> httpclient core TLS13Cipher; LegacyCiphers	8367
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. <u>Package</u> <u>Section</u> <u>Options</u> openvpn openvpn pamauth_enabled system pam_auth pamservice `openvpn`	8098 8543
Routing		
PIM Multicast	PIM multicast support is now available via the FRR module	8362
Scada		

	DNP3 master now supports communication with two RTU over a single serial link. All existing DNP3 master options now have <u>link2_options</u>			
DNP3 Multidrop	<u>Package</u>	<u>Section</u>	<u>Options</u>	8313
	iecd	port	dnp3_num_links; dnp3_transport_protocol 'multidrop'; dnp3_link2_transport_protocol 'multidrop'	
IEC61850 extended RTU support	Added support for up to 30 local RTUs for IEC104 to IEC61850 protocol conversion			8353
SNMP				
VA-MULIT-IO MIB	SNMP support for digital IO's using VA-MULTI-IO MIB			6478
Strongswan				
XAUTH-PAM authentication	Support xauth-pam authentication. A responder-side authentication variant for ikev1 where credentials are accepted via XAuth and checked against PAM			8420
	<u>Package</u>	<u>Section</u>	<u>Options</u>	8543
	strongswan	connection	remoteauth 'xauth-pam'; remoteauth2 'xauth-pam'	
	system	pam_auth	pamservice 'ipsec'	
System				
CPU temperature	Added support to show CPU temperature cli: showtemp			6478
TPM				
ECC key generation	Added support for generation of ECC keys in TPM			8415
RSA key generation (4096 bit)	Added support for 4096 bit RSA keypair generation for TPM			8493
Web UI				
Connection Watch	Individual tabs for each connection watch configuration and new cwatch status page added to web UI web: Status->Connection Watch			6973
GNSS	Automatically refresh GPS satellite information every 5 seconds			8537
Multiwan	Individual tabs for each Multiwan interface. Configured interfaces now presented as selection rather than text			8435
PPPoE interface	Support configuration of multiple PPPoE interfaces on the same Ethernet link			4287
SCADA/DNP3S	Enhancements to DNP3S point group ID selector configuration			8514
User-Defined Scripts	Individual tabs for each UDS and new UDS overview page			8361

10.4 Release 25.04.57.001

No new features			
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10.5 Release 25.04.57.000

Network				
	Support for Equal Cost Multi Path (ECMP) feature. Route has a single target but multiple gateway/interface pairs to route over.			
Multi Path Routes	<u>Package</u>	<u>Section</u>	<u>Options</u>	8219
	network	mp_route	paths; target, netmask, metric, mtu, mark	8250
		mpath	interface; gateway, weight	
NTP				
	Allow configuration of minpoll and maxpoll interval using existing NTP interval hours option (space separated parameters)			
NTP min/max poll interval	<u>Package</u>	<u>Section</u>	<u>Options</u>	8318
	system	timeserver	interval_hours	
Scada				
Automatic IEC104 point configuration	Support automatic IEC104 point configuration after IEC61850 SCL file import			8248
	Support VRTU data types and periodic auto updating per point			
VRTU data types	<u>Package</u>	<u>Section</u>	<u>Options</u>	8233
	iecd	point	vrtu_value_type; vrtu_value_init; vrtu_periodic_value_change	
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	

10.6 Release 25.04.51.000

System				
Merlin3100 Secure Boot	Support hardware secure boot for Merlin3100			7480

10.7Release 25.04.50.000

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>	
	Firewall	2	DiscardZone	warning	Rule %{p1} triggered: %{p6} from %{p4}:%{p7}(%{p2}) to %{p5}:%{p8}(%{p3})	7769
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.					
	<u>Package</u>	<u>Section</u>	<u>Options</u>			
	firewall	zone	discard_event			
Monitor						
EID Inventory	Support for inventory collection of SIM EID information					8030
Password Scrambling						
Monitor SNMP v3 passwords	Monitor SNMP v3 password options now added to the set of passwords fields that can be scrambled					
	<u>Package</u>	<u>Section</u>	<u>Options</u>			
	monitor	keepalive	snmp_auth_pass; snmp_priv_pass	8090		
PPP						
BCP support	Added support for Bridge Control Protocol for bridging Ethernet packets through a PPP link. Supported for PPP and L2TP protocols.					
	<u>Package</u>	<u>Section</u>	<u>Options</u>			
	network	interface	bcp; maclocal	7935		
Scada						
DNP3 G10 and G41	Support conversion from DNP3 Binary Output Command G10 and G41 to IEC60870-5-101					
	<u>Package</u>	<u>Section</u>	<u>Options</u>			
	iecd	point	iec101_qu	8100		
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.					
IEC104 Type ID 51 and 64	Support for IEC104 Slave to IEC104 Master Bitstring command conversion					
						8192
SNMP						
EID OID	SIM EID now supported in VA-MODEM-MIB					8029

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						
	<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>uci_alias_ifnumber</td> </tr> </tbody> </table>	Package	Section	Options	network	interface	uci_alias_ifnumber	
Package	Section	Options						
network	interface	uci_alias_ifnumber						
System								
GW1042 Lite	Support for GW1042 Lite variant with single SIM and no Wifi (machtype: MTATH001)	8117						
Merlin3100 watchdog	Support for external watchdog in Merlin3100 series	8186						

10.8Release 25.04.29.000

Mobile								
PRI display	Added PRI to mobile stats for Sierra Wireless modules cli: vam -a	7440						
SIM7070E diagnostic port	Added support for SIMCOM7070E diagnostic port	7979						
Scada								
Modbus TCP	Added TCP port number to route config <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>modbus_tcp_server_port</td> </tr> </tbody> </table>	Package	Section	Options	iecd	port	modbus_tcp_server_port	7977
Package	Section	Options						
iecd	port	modbus_tcp_server_port						
Optional DNP3 G40 status	Support optional reporting of DNP3 G40 analog output during integrity poll <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>dnp3s_g40_exclude_intpoll</td> </tr> </tbody> </table>	Package	Section	Options	iecd	port	dnp3s_g40_exclude_intpoll	7999
Package	Section	Options						
iecd	port	dnp3s_g40_exclude_intpoll						
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 cli: debug mobile on cli: debug ipsec on cli: debug multiwan on	4677						

10.9Release 25.04.19.000

Console								
Console disable	Support new option for disabling the console port <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>console</td> </tr> </tbody> </table>	Package	Section	Options	system	failsafe	console	7802
Package	Section	Options						
system	failsafe	console						
Interface								
	Include physical ports with eth-X interfaces in interface status	7900						

Interface Status	Support wildcards on interface names to show all matches. cli: ifstatus eth0 (matches only eth0) cli: ifstatus eth* (matches all eth interfaces)	7440									
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									
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>management</td> <td>user</td> <td>groups</td> </tr> <tr> <td>_user</td> <td>group</td> <td>enabled; allowed_pages</td> </tr> </tbody> </table>	Package	Section	Options	management	user	groups	_user	group	enabled; allowed_pages	
Package	Section	Options									
management	user	groups									
_user	group	enabled; allowed_pages									
Mobile											
Airplane mode in backoff	Support new option to enter Airplane Mode during the interface back off period	7032									
	<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>airplane_mode_backoff</td> </tr> </tbody> </table>	Package	Section	Options	network	interface	airplane_mode_backoff				
Package	Section	Options									
network	interface	airplane_mode_backoff									
LTE power saving mode	Support LTE PSM mode for SIMCom7070E mobile module	7841									
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>mobile</td> <td>mobile</td> <td>sim1_enable_psm; sim2_enable_psm</td> </tr> </tbody> </table>	Package	Section	Options	mobile	mobile	sim1_enable_psm; sim2_enable_psm				
Package	Section	Options									
mobile	mobile	sim1_enable_psm; sim2_enable_psm									
SMS security	Improvements to SMS queue processing and support new options for better control how SMS messages are handled	3976									
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>mobile</td> <td>mobile</td> <td>sms_read_interval; sms_check_time; sms_past_margin; sms_future_margin</td> </tr> </tbody> </table>	Package	Section	Options	mobile	mobile	sms_read_interval; sms_check_time; sms_past_margin; sms_future_margin				
Package	Section	Options									
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									
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>mobile</td> <td>caller</td> <td>allowed_commands</td> </tr> </tbody> </table>	Package	Section	Options	mobile	caller	allowed_commands				
Package	Section	Options									
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									
	<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>netdev_wd_action</td> </tr> </tbody> </table>	Package	Section	Options	mobile	main	netdev_wd_action				
Package	Section	Options									
mobile	main	netdev_wd_action									
OpenVPN											
TPM support	Support OpenVPN keys in TPM. The existing key option should be configured to the TPM label for the OpenVPN key	7126									
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>openvpn</td> <td>openvpn</td> <td>keytype; key '<TPM-label>'</td> </tr> </tbody> </table>	Package	Section	Options	openvpn	openvpn	keytype; key '<TPM-label>'				
Package	Section	Options									
openvpn	openvpn	keytype; key '<TPM-label>'									
Multiwan											
Suppress static routes	New option to suppress all static routes for an interface when it transitions to failed state	7809									
	<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>suppress_all_routes_on_fail</td> </tr> </tbody> </table>	Package	Section	Options	multiwan	interface	suppress_all_routes_on_fail				
Package	Section	Options									
multiwan	interface	suppress_all_routes_on_fail									

Password Management				
	SSH and web UI now support Multi Factor Authentication using Google authenticator			
Multi Factor Authentication	<u>Package</u>	<u>Section</u>	<u>Options</u>	5339
	dropbear	dropbear	multi_factor_auth	7152
	luci	main	multi_factor_auth	7154
	system	pam_auth	type 'google'	
Password lifetime	Support password lifetime configuration for management users. Does not apply to root password			
	<u>Package</u>	<u>Section</u>	<u>Options</u>	7156
	management_user	user	max_passwd_age	
Password regex	Support configuring password regex rules. Applies to root password and management users password			
	<u>Package</u>	<u>Section</u>	<u>Options</u>	7194
	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
	<u>Package</u>	<u>Section</u>	<u>Options</u>	
	network	interface	adaptive_keepalive	
RADIUS				
NAS-Identifier option	Support new configuration option for NAS-Identifier with support for %serial and %hostname option values			7347
	<u>Package</u>	<u>Section</u>	<u>Options</u>	
	system	pam_auth	radius_nasid	
SCEP				
TPM support	SCEP now supports key pair management in TPM			
	<u>Package</u>	<u>Section</u>	<u>Options</u>	7125
	strongswan	scep_cert	use_tpm; key_label	
SNMP				
Multiwan state OID	Added ifMultiwanState to VA-UCI-MIB			6915
Sim detection OID	Added SimIn to VA-MODEM-MIB			6915
SSH				
Limit concurrent users	Support new option for limiting concurrent authenticated user sessions (Mantis: 7160)			7160
	<u>Package</u>	<u>Section</u>	<u>Options</u>	
	dropbear	dropbear	MaxConnections	

Strongswan				
IKEv2 Multiple subnet support	Support multiple subnets for ikev2			6026
	Package	Section	Options	
	strongswan	connection	locallanextra; remotelanextra	
TPM support	Support strongswan keys in TPM. TPM keys are supported via the <code>token</code> secret type. In this case the value of the secret specifies the label of the key to use.			4460
	Package	Section	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
	Package	Section	Options	
	strongswan	general	vrf	
XAuth EAP support	Added support for xauth-eap and eap-radius authentication methods			6294
	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				

VA Event System now supports <code>ieee8021x</code> event class and events					
	Id	Name	Severity	Event Template	
802.1x events	1	IEEE8021xRestrictingIf	notice	IEEE8021x restricting on % <code>{p1}</code>	6528
	2	IEEE8021xAllowingAllonIf	notice	IEEE8021x allowing all on % <code>{p1}</code>	
	3	IEEE8021xAllowingMAConIf	notice	IEEE8021x allowing % <code>{p1}</code> on % <code>{p2}</code>	
	4	IEEE8021xBlockingMAConIf	notice	IEEE8021x blocking % <code>{p1}</code> on % <code>{p2}</code>	
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->mobile manager->lte</code>				
Session control	Added utility to list and terminate web sessions (Mantis: 7159)			7159	
	<code>web: system->sessions</code> <code>cli: sessionctl</code>				
Web UI theme	New restructured web UI with navigation links on left side frame.				
WeConnect					
DCU VPN Concentrator Support	Added support for DCU VPN Concentrator to WeConnect				

10.10 Release 25.03.43.011

No new features

10.11 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"> When configured for PEM key and key cannot be found at the configured location, the router will try to use a TPM key with name corresponding to base file name (<code>/etc/uhttpd.key -> "uhttpd"</code>). When configured for TPM key and key cannot be found in the TPM, the router will try to use file <code>"/etc/<tpm label>.key"</code>

Mobile							
FOTA support for Unitac modules	Support FOTA upgrade for Unitac modules						
Neighbour cell information	Added display of neighbouring cell information. Currently only supported on Unitac ML620/660 and Quectel EC200x series cli: <code>vam -n</code>						
Multiwan							
Multiwan upper retry limit for roaming interfaces	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)						
	<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>retry_connection_max_sec</code> (def: <code>multiwan.interface.ifup_timeout_sec</code>)</td> </tr> </tbody> </table>	Package	Section	Options	multiwan	interface	<code>retry_connection_max_sec</code> (def: <code>multiwan.interface.ifup_timeout_sec</code>)
Package	Section	Options					
multiwan	interface	<code>retry_connection_max_sec</code> (def: <code>multiwan.interface.ifup_timeout_sec</code>)					
TPM							
List TPM keys	Support new diagnostic command to list TPM keys cli: <code>tpm-cli listkeys</code>						

11 Appendix 2: Problems resolved history

11.1 Release 25.05.03.000

Module	Short Description	Mantis
Cwatch	Ensure a minimum of ICMP attempts when jitter and latency checks are enabled – 3 for jitter, 2 for latency	8095
	Fix segfault when an additional cwatch config section is empty	8554
	Log an error message when trying to restart a Sierra Wireless WP7xxx modules using cwatch radio module restart recipe as this module does not support	8398
	Show cwatch status info even when cwatch process is not running	8554
Event System	Fix <code>ConfigChanged</code> event not being generated when using configuration audit	7132
IECD	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 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
IECD/IEC104	Fix issues with IEC104 command point pass through dependencies	8617
IECD/ IEC61850	Fix data polling delays for IEC61850M to IEC104S protocol conversion when using multiple RTUs with large number of data points	8672
	Fix IEC61850M SCL parser issue related to RCBs and datasets	8716
	Incomplete Parsing of Data and Command Points for 30 61850M Links	8570
	Fixed point event queue overflow for IEC61850M to IEC104S protocol conversion for data points greater than 127	8560
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 issue in converting 104 setpoint float to Modbus 64 bit commands	8655
	Implemented missing command conversion from IEC104 Setpoint Float to Modbus	8614
IECD/MQTT	Added default setting of MQTT port for VHMI	8531
Mobile	Fix RM520 mobile module connectivity using RM520NGLAAR01A08M4G_01.200.01.200 firmware	8698
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 incorrect interfaces	8282
	Clear conntrack table when routes are changed to avoid stale connections	8256
	Fix issue restoring default gateway metric when interface recovers	8282
	Fix mobile interface losing IP address after USB restart via command line or via Connection Watch <code>Interface restart</code> failure action	8754

OpenVPN	Fix multiple OpenVPN tunnel establishment without the need for process restart	8478
	Fix OpenVPN establishment due to missing key_direction option (broken in 25.04.72.000)	8731
	Fix OpenVPN tunnel interface failing to get IP address with TPM stored keys	8822
SCEP	Fix SCEP certificate enrolment failure using TPM-backed key	8441
SFP	Fix bridging two SFP ports on Merlin4600 series	8651
Strongswan	Fix ipsec statusall crash when multiple peers connect to a single connection with remoteaddress configured as %any and an unspecified remotelan	8785
	Fix strongswan file permissions for IPsec XAUTH with PAM	8802
Syslog	Fix kernel warning when moving or reconnecting a bridge Ethernet port	8697
System	Added low level console log support in Merlin3100	8580
	Disable unused packages on Merlin3100 series	7609
	Fix configuration error message due to obsoleted openvpn_recipes package	8811
	Fix incorrect config file errors when running configuration sanity check sanity_check.sh	8732
Web	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/Connectio n Watch	Fix incorrect Connection Watch status display on web UI when there are underlying configuration issues	8569
	Fix cwatch status showing as disabled when enabled	8837
Web/Interface	Fix issue when creating an interface with a device already assigned to another interface	4072
Web/IPSec	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
Web/Multiwan	Multiwan now stops correctly when disabled via the web UI	8085
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
	Added missing IEC104 options to web UI	8764
	Change MODBUS <code>modbus_regtype</code> command type import from string to numerical	8684
	Changed MQTT TLS Verify Depth to a dropdown list instead of integer	8707
	Fix configuration of IEC104 Auth Exp Key Wrap Algo option	8718
	Fix display of Integrated Totals IEC104 type ID	8656
	Fix DNP3 link connection status displaying incorrect state in web UI	8416
	Fix IEC104 Master Link 2 tab option visible when only Link 1 is enabled	8765
	Fixed data points in IEC104 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
	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 descriptions for MQTT server options	8680
	Updated IEC104M point field descriptions	8480
Web/SCEP	Fix SCEP client status showing correctly	8835
Web/VRRP	Fix 'Track Interface' configuration as <code>list</code> type for proper operation	8637
Web/Weconnect	Enforce entering required Weconnect parameters	8634

11.2Release 25.04.78.000

Module	Short Description	Mantis
Cwatch	Fix <code>icmp_attempts</code> operation when configured for 1 or 2 packets to be sent during connectivity test (broken in 25.04.72.000)	8609
Ethernet	Fix manual <code>ifup</code> on non auto Ethernet and SFP interfaces	8507
Firewall	Optimise local IP checking using cache	8307
IECD	Improve IEC104 launch speed when using a large number of data points	8608
IECD/DNP3	Fix incorrect reporting of DNP3S link status	8620
IECD/IEC104	Added Command Type ID validation to configured <code>cmdpoint</code> type id for IEC104 Server	8579
	Improvements for IEC104 Server transmission queue for optimal upload performance.	8625
IECD/IEC61850	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

IECD/Modbus	Fix incorrect reporting of point online (quality status)	8619
LLDP	Fix LLDP description delivery to peer	8627
	Fix LLDP neighbour establishment	8595
Mobile	Fix 5G performance on Merlin3100 series	8632
Multiwan	Fix multiwan pre-empt functionality (broken in 25.04.35.000)	8575
System	Ensure <code>/etc/rollback</code> directory is automatically created and fix rollback from active update to altconfig target	8621
	Improve firmware validation to cover both kernel and main image before flashing to altimage	2882
Web/Connection Watch	Ensure ICMP jitter options are only present on web UI when method <code>icmp</code> is selected	6973
Web/IPSec	Fix crash when accessing Authentication tab on web UI	8582
Web/Multiwan	Fix multiwan configuration using web UI when <code>main</code> configuration section is missing in config	8569
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

11.3 Release 25.04.72.000

Module	Short Description	Mantis
Cwatch	Use parallel ping when multiple <code>icmp_hosts</code> defined	7312
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	Support <code>network.va_switch</code> config section on DSA platforms	8451
Firewall	Fix conntrack flushing	8341
GRE	Fix UDP VLAN to GRE routing scenario in Merlin3100 series	8340
IECD	Set Point configuration defaults after importing points from CSV file	8301
IECD/ IEC61580	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 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
	Set <code>iec104_sbo</code> parameter based on the parsed value of <code>ctrlmodel</code> of IEC61850M SCL file	8467

IECD/DNP3	Fix error in displaying DNP3 app status	8348
	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/Modbus	Fix incorrect conversion from Modbus DI or CO to IEC104 Slave DPI (Type ID 3)	8380
	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
Management Users	Fix management user <code>allowed_pages</code> handling	8225
Mobile	Disable VoLTE on SIMCOM7600 mobile module to avoid establishing an IMS bearer in selected networks	8405
	Fix crash for Quectel modules when SIM2 in during boot and SIM1 inserted after boot	8529
	Generate error message and handling if no supported LTE bands have been detected on a mobile module	8370
Multiwan	Fix default route losing gateway metric after recovery	8329
	Fix multiwan crash due to module separation	8435
	Ping failure not recorded when pings dropped due to iptables rules	8545
	Split multiwan route management, health check and state management into separate modules	8327
	Log multiwan shell commands at debug level	8332
Network	Remove IP address display if interface is down using <code>network_status</code> command	6763
OpenVPN	Fix support for multiple tunnels	8316
Strongswan	Fix strongswan crash caused by policy use-after-free when interface goes down on Merlin4700	7003
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
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
Web/Administration	Fix TPM key upload via web UI	7874
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/IPSec	Fix IPSec status display for multiple child tunnels	8444
	Fix misleading preshared key ID selector label	8349
	IPsec status now displays multiple subnets for IKEv2	8352

Web/Mobile	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/SCADA	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 quality column and data point quality reporting to IECD status in web UI	8406
	Added reminder on web UI to save config when changes made on IECD pages	8052
	Description changed to reflect the fact that IEC61850 SCL file import only works with SCADA side protocol set to IEC104	8353
	Fix IEC104 W option description in IEC104_LINK. Was previously incorrectly labelled IEC104 K	8436
Web/Status	Fix incorrect display of value for IEC104S to Modbus TI 9, 3 and HR DI	
	Added mobile overview and routing table to web UI status overview page	6965
	Suppress link local IPv6 addresses in routing table overview	6965
Web/UDS	Support UDS gzip encoding configuration via web UI	8368

11.4Release 25.04.57.001

Module	Short Description	Mantis
Failsafe	Fix auth error messages in syslog when console disabled using failsafe feature	8401

11.5Release 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
GPS	GPS error messaging improved by using error messages instead of error numbers	6660
IECD/ IEC104 Slave	Fixed issue with sending End of Initialization message in IEC104 slave	8233
	Fixed TCP connection drop on IEC104 clock sync processing	8211
Mobile	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
	Stop flushing contrack table every time a mobile connection fails to reconnect	8277
Multiwan	Fix issue where default gateway is lost on route change	8282

PPP	Allow PPP interface to be up without IP address	8229
Strongswan	Fix conntrack flushing for strongswan on tunnel change	8249
TPM	Support 4096 bit RSA keys in TPM	8209
Watchdog	Decrease time on hardware watchdog timer first Linux reset from 15 seconds to 8 seconds to avoid watchdog boot loop on Merlin3100 series	8297
Web	Change 'Modem configuration' to 'Mobile Manager Configuration'	7310
	Fix formatting error messages in web UI	8255
Web/GPS	Add option to select mobile device required to use GPS	7943
Web/SCADA	Add debug options for IEC61850 to web UI	8215
	Fixed IEC61850 application restarting correctly when Save & Apply button used and IEC61850 connection is active.	8214
Web/ Interfaces	Fix unable to select SIM1 or SIM2 from mobile interface SIM configuration option	8007
Web/Mobile	Mobile status information on the web now automatically refreshes every 5 seconds	8272
Web/SCADA	Add debug options for IEC61850 to web UI	8215
	Fixed IEC61850 application restarting correctly when Save & Apply button used and IEC61850 connection is active.	8214
Web/ Strongswan	Elliptic curve Diffie-Hellman algorithms can now be configured via the web UI when using IKEv2	7730

11.6 Release 25.04.51.000

Module	Short Description	Mantis
System	Fix kernel panic caused by <code>nss</code> drivers when using VLANs	8200
System	Small adjustment to reset watchdog timer during boot to allow for a slow boot cycle	8206

11.7 Release 25.04.50.000

Module	Short Description	Mantis
Event System	Fix missing interface names in VA event messages generated by the firewall using the <code>recent</code> option.	8037
	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
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/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 incorrect detection of registration status while in GPRS mode	7945
	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
	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
	Set minimum firmware software version for Quectel EM060 module to prevent rollback to unsupported firmware	8088
Monitor	Fix Monitor SSH access for SLA uploads	8175
PPP	Fix option <code>record</code> support	8022
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
Syslog	Fix bad values intermittently generated using firewall recent option	8055
	Only show error and assert messages for <code>nss ecm</code> events to avoid cluttering logs	8196
	Removed confusing MAC address entry	8201
System	Adjust watchdog timeout to avoid boot timing issues to allow fail over to alternate firmware when boot firmware is corrupted	8206
	Fix <code>NAND failure to read page</code> console message	8140
TPM	Fix active update when using keys in TPM	8185
	Improve messaging to users during key existence checks	7567
	Support TPM in Merlin3100	8034
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
	Ensure lines are visible underneath the login fields	8072
	Fix interface colours after firewall zone update	8056
	Fix pixelated background images	8072

	Fix web UI crash when option <code>ifname</code> is missing from an interface	8050
	Remove welcome message, hostname and logo from landing page	8072
Web/ Administration	Fix broken link on TPM cert upload page	8082
	Fix TPM key upload	7874
	Improvements to reboot scheduling	8125
	Upload TPM key button is now removed for non-TPM boards	8086
Web/Firewall	Ensure firewall zone names are no longer than 12 characters	7791
Web/GPS Status	Restore link to google maps	7403
Web/HTTP Server	Fix typo on web UI HTTP Server TPM Key Name	8079
Web/Interface	Align up/down indicator centrally	7988
	Fix network interface colours to reflect up/down status	6536
	Fix removal of dependent interfaces from configuration	8074
	Support default route and metric configuration on L2TP interfaces	8073
	Update interface pages to show firewall zones as colours	7988

11.8Release 25.04.29.000

Module	Short Description	Mantis
Data Usage	Fix data usage bringing down interface when monthly usage limit reached	7759
GPS	Fix <code>gpspeek</code> location information	7980
Mobile	Corrected 5G technology codes so that they match with 3GPP 27.007 Release 16	7992
	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 5G SA mode on Quectel RM520N-GL mobile module	7975
Network	Fix link loss when changing from bridge to single port	7937
Roaming Manager	Ignore test operators in roaming scan	8001
Scada/ Modbus	Fixed bug in converting MODBUS HR register reads to DNP3S points (G30 and G40) mapped to same HR index	7999
	Fix memory crash on GW1150 series under heavy load	4681
	Re-enable <code>nano</code> support on CPX firmware (disabled in CPX-25.04.19.000)	7998
	Suppress UCI error on <code>version -a</code> command if mobile module is not initialised	7984

Web/Real Time Graph	Only show UCI network interfaces on the Realtime Traffic screen	7946
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11.9Release 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>vrrp</code> as valid protocol option	7906
GRE	Validate configured keys are unique	6769
HTTP Client	Include all CPUs in interrupt count value in hdl request field <code>irq_cnt</code>	6228
Mobile	Added error messages for failed connection attempts for Quectel modules in Ethernet mode	7899
	Allow backslash '\ in username and password	7360
	Custom interface DNS now supported by Unitac modules	7192
	Ensure PDP context is deactivated before attempting to establish connection to avoid issue with connection attempt	7168
	Fix band selection for SIMCom7070E module	7833
	Fix EID detection when APDU contains the tag and length	7522
	Fix operator scan	7693
	Fix Quectel registration status poller	7484
	Fix Unitac module FOTA upgrade on GW6650V and Merlin4700	7761
	Fix <code>va_mobile</code> failing to start if LTE band list is empty	7495
	Fixed network status constantly changing textual description (LTE/LTE-M) for used radio technology	7340
	Fixes to ensure the manual network operator selection is executed in the right order	7797
	Improve behaviour on network down for QMI connections to ensure reconnection after network outage	6325
	Improve the handling of +CREG responses so that it also handles CREG mode 2	7880
	LTE band locking configuration option <code>simX_lte_bands</code> now supports space separated bands	
Log a warning that GNSS is not supported for SIMCom7070E mobile module	7822	

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

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

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

11.10 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

11.11 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	

