

1 Revision history3

2 Firmware release statement3

3 Mobile module support4

4 Security fixes.....4

5 Security vulnerabilities5

6 New features6

7 Deprecated features8

8 Known issues.....9

9 Problems resolved10

10 Appendix 1: New features history.....15

11 Appendix 2: Problems resolved history.....26

1 Revision history

Date	Revision	Description
21 October 2022	1.00.00	Release notes for DRS-25.03.01.000
25 November 2022	1.00.01	Release notes for DRS-25.03.05.000
23 March 2023	1.00.02	Release notes for DRS-25.03.23.000
27 March 2023	1.00.03	Release notes for DRS-25.03.23.002
11 May 2023	1.00.04	Release notes for DRS-25.03.33.004
25 September 2023	1.00.05	Release notes for DRS-25.03.43.007
26 April 2024	1.00.06	Release notes for DRS-25.03.43.021
12 August 2024	1.00.07	Release notes for DRS-25.04.13.000
05 September 2024	1.00.08	Release notes for DRS-25.04.16.000
25 November 2024	1.00.09	Release notes for DRS-25.04.35.000
05 December 2024	1.00.10	Release notes for DRS-25.04.35.001
13 March 2025	1.00.11	Release notes for DRS-25.04.35.003
03 July 2025	1.00.12	Release notes for DRS-25.04.76.000

2 Firmware release statement

DRS-25.04.76.000 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)
DRS-25.04.76.000.k02.image	15,912,960	03/07/2025	4522ee4417a5f6721b018b062e4ee1b3

2.2 Hardware platforms

Hardware model	Details
GW6650V	VDSL2/ADSL2+, Dual SIM LTE/LTE M, 5xGigE Ethernet interface, TPM and secure boot. Optional second LTE, WiFi
Merlin4700	Industrial VDSL2/ADSL2+, Dual SIM LTE/LTE-M, 4xGigE Ethernet interface, 2xSerial, 6xDI, 2xDO, TPM and secure boot
Merlin4750	Industrial VDSL2/ADSL2+, Dual SIM 5G, 4xGigE Ethernet interface, 2xSerial, 6xDI, 2xDO, TPM and secure boot

3 Mobile module support

3.1 5G modules

Firmware	Code	Module	3G	LTE	5G
25.03.43.021	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, 28,29,30,32, 66,71 LTE-TDD: 34,38,39,40,41,42,43, 48	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

3.2 LTE modules

Firmware	Code	Module	Cat	2G	3G	LTE
25.03.43.021	PFO	SIMCOM SIM7600G-H	4	850/900/ 1800/1900	1,2,4,5 ,6,8,19	LTE-FDD: 1,2,3,4,5,7,8,12,13,18,19,20, 25,26,28,66 LTE-TDD: 34,38,39,40,41
25.03.01.000	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
	QFX	SIMCOM SIM7070E	M	850/900/ 1800/1900	-	1,2,3,4,5,8,12,13,14,18,19,20 ,25,26,27,28,31,66,72,85

4 Security fixes

Firmware	Module	Description	Severity	Mantis
25.04.76.000	luci	Added Security-Policy-Header (CSP) to prevent clickjacking	Low	8087
25.04.35.000	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
	openVPN	Updated to version 2.5.11 Fixes CVE-2022-0547	Irritant	6238
	pam_tacplus	Avoid potential freeing of non-address Fixes CVE-2020-27743 and CVE-2016-20014	Medium	8002
25.04.16.000	dnsmasq	Updated to version 2.90 Fixes CVE-2023-28450 and CVE-2022-0934	Medium	7796

	dropbear	Updated to version 2024.85	Medium	7560
	frr	Fix CVE-2024-44070. FRRouting (FRR) does not check the actual remaining stream length before taking the TLV value.	Medium	7858
	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
25.04.13.000	dropbear	Updated to 2022.83	Medium	6403 4976
	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
	System	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
25.03.43.007	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

5 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	Medium	7301

6 New features

Cwatch				
Jitter and latency detection	Support new options to specify maximum permitted jitter and latency			8095
	Package	Section	Options	
	cwatch	watch	icmp_max_jitter; icmp_max_latency; icmp_max_average_latency	
Ping interval configuration	Support configuration of cwatch ping interval. Previously hardcoded to 10 seconds.			7350
	Package	Section	Options	
	cwatch	watch	icmp_interval	
Dropbear				
SSH algorithm configuration	Support configuration of cipher, host key and key exchange algorithms for SSH connections			8344
	Package	Section	Options	
	dropbear	dropbear	cipher; sign_algo; kex_algo	
DSL				
Operator and Noise Adjust	Added new options to set operator profile for VDSL waveform tuning and adjust target noise to trade speed for reliability			8353
	Package	Section	Options	
	network	xdsl-device	operator; dsl_noiseadjust	
HTTP Client				
SSL cipher configuration	Added support for configuration of supported SSL ciphers			8353
	Package	Section	Options	
	httpclient	core	TLS13Cipher; LegacyCiphers	
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
	Package	Section	Options	
	system	timeserver	interval_hours	
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
	Package	Section	Options	8543
	openvpn	openvpn	pamauth_enabled	
	system	pam_auth	pamservice 'openvpn'	
Password Scrambling				
Monitor SNMP v3 passwords	Monitor SNMP v3 password options now added to the set of passwords fields that can be scrambled			8090
	Package	Section	Options	
	monitor	keepalive	snmp_auth_pass; snmp_priv_pass	
Routing				
PIM Multicast	PIM multicast support is now available via the FRR module			8362
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
	Package	Section	Options	
	iecd	point	iec101_qu	
DNP3 Multidrop	DNP3 master now supports communication with two RTU over a single serial link. All existing DNP3 master options now have _link2_options			8313
	Package	Section	Options	
	iecd	port	dnp3_num_links; dnp3_transport_protocol 'multidrop'; dnp3_link2_transport_protocol 'multidrop'	
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
IEC61850 extended RTU support	Added support for up to 30 local RTUs for IEC104 to IEC61850 protocol conversion			8353
VRTU data types	Support VRTU data types and periodic auto updating per point			8233
	Package	Section	Options	
	iecd	point	vrtu_value_type; vrtu_value_init; vrtu_periodic_value_change	
SNMP				
VA-MULIT-IO MIB	SNMP support for digital IO's using VA-MULTI-IO MIB			6478

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
	Package	Section	Options	
	network	interface	uci_alias_ifnumber	
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
	Package	Section	Options	8543
	strongswan	connection	remoteauth 'xauth-pam'; remoteauth2 'xauth-pam'	
	system	pam_auth	pamservice 'ipsec'	
System				
CPU temperature	Added support to show CPU temperature <code>cli: showtemp</code>			6478
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
	Package	Section	Options	
	rollback	core	enabled; timer	
TPM				
ECC key generation	Added support for generation of ECC keys in TPM			8415
Web UI				
Connection Watch	Individual tabs for each connection watch configuration and new cwatch status page added to web UI <code>web: Status->Connection Watch</code>			6973
GNSS	Automatically refresh GPS satellite information every 5 seconds			8537
	Add sky view for GNSS satellites			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

7 Deprecated features

Firmware	Package	Description	Mantis
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25.04.76.000	mobile	Removed support for downloading a factory config via a SIM card	8373
	zabbix	Removed Zabbix agent	8469
25.04.35.000	Web/IECD	Removed serial baud rates below 1200 from web UI configuration pages. These values are available via Modbus #1 Serial Speed	8000
25.04.13.000	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
	X25	Deprecated <code>x25d</code> , <code>x25ipd</code> and <code>x25val</code> packages	7467

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
IECD	DNP3 link uptime not showing correct uptime	8417
	Group 20 counters not included in General Interrogation for DNP3M to IEC104S conversion	8517
	IEC104S sends incorrect float values in spontaneous for G40 V4	8527
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
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	Unable to load .P12 or .PXF certificate files via the web UI	8519
	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

9 Problems resolved

Module	Short Description	Mantis
BCP	Fix BCP crash upon receipt of IPv6 frame	8116
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
DSL	DSL Transmit Power stats now show correct value when negative values returned from chipset. Previously these showed as 0.0dB.	8445
	Fix <code>dsl_restart</code> command	8486
	Fix multiple PPP daemons after multiple ADSL UP events which could lead to a loss of connectivity	8317
Ethernet	Fix manual <code>ifup</code> on non auto Ethernet and SFP interfaces	8507
	Support <code>network.va_switch</code> config section on DSA platforms	8451
Event System	Fix syslog message sending to multiple IP address	8046
Failsafe	Fix auth error messages in syslog when console disabled using failsafe feature	8401
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
	Optimise local IP checking with cache	8307
	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
	Improve IECD launch speed when using a large number of data points	8608
	Improved data points CSV import feature	8191
	Set Point configuration defaults after importing points from CSV file	8301
IECD/DNP3	Fix error in displaying DNP3 app status	8348
	Fix incorrect link assignment when sending dual point cmd IEC104S to DNP3M	8390
	Fix incorrect reporting of DNP3S link status	8620
	Fix incorrect reporting of point online (quality status)	8619
	Fixed issue with DNP3 analog input scaler for IEC104 TIs 9,11	8347
	Fixed issues in applying scaler to negative MODBUS value for DNP3 to MODBUS protocol conversion	8207
	Fixed sending ACT CON and ACT TERM to Scada Master for IEC104 slave to DNP3 master protocol conversion	8348

IECD/IEC104	Fixed issue with sending End of Initialization message in IEC104 slave	8233
	Added Command Type ID validation to configured cmdpoint type id for IEC104S	8579
IECD/ IEC61580	Added default config values for IEC61850 master settings	8351
	Fix an issue in SCL parser - converting DPS point types	8535
	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
	Fixed TCP connection drop on IEC104 clock sync processing	8211
	Set <code>iec104_sbo</code> parameter based on the parsed value of <code>ctrlmodel</code> of IEC61850M SCL file	8467
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
	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
LED	Fix mobile LED behaviour for dual radio variants of Merlin4700 series	8179
Management Users	Fix management user <code>allowed_pages</code> handling	8225
Mobile	Correctly identify Unitac ML620DE and ML620EU modules in diagnostics. Previously both identified as ML620EU.	8166
	Disable VoLTE on SIMCOM7600 mobile module to avoid establishing an IMS bearer in selected networks	8405
	Fix bug introduced in 25.04.26.000 which prevented routers with Quectel modules establishing connection depending on certain operator checks	8247
	Fix crash for Quectel modules when SIM2 in during boot and SIM1 inserted after boot	8529
	Fixes to ensure Unitac modules are initialised correctly	8093

	Generate error message and handling if no supported LTE bands have been detected on a mobile module	8370
	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
Multiwan	Fix default route losing gateway metric after recovery	8329
	Fix multiwan crash due to module separation	8435
	Fix multiwan pre-empt functionality	8575
	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	Fix Ethernet interfaces on Merlin series intermittently failing to restart after a network restart command	8120
	Remove IP address display if interface is down using <code>network_status</code> command	6763
OpenVPN	Fix support for multiple tunnels	8316
PPP	Allow PPP interface to be up without IP address	8229
SFP	Fix SFP interface correctly detecting state when using certain 1000base-X copper adapters that were not identifying when the Ethernet link was down	8152
Strongswan	Fix conntrack flushing for strongswan on tunnel change	8249
	Fix strongswan crash caused by policy use-after-free when interface goes down on Merlin4700	7003
Syslog	Fix bad values intermittently generated using firewall recent option	8055
	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
	Improve firmware validation to cover both kernel and main image before flashing to altimage	2882
TPM	Improve messaging to users during key existence checks	7567
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
	Define link colour for dark mode	8099
	Do not show DLMSD or COSEM configuration if no serial interface present	8061
	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 menu items when they don't fit the menu width	8546
	Fix pixelated background images	8072
	Fix web UI crash when option <code>ifname</code> 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	Fix broken link on TPM cert upload page	8082
	Fix TPM key upload	7874
	Fix TPM key upload via web UI	7874
	Improvements to reboot scheduling	8125
	Upload TPM key button is now removed for non-TPM boards	8086
Web/Cwatch	Ensure ICMP jitter options are only present on web UI when method <code>icmp</code> is selected	6973
Web/Firewall	Add option to WebUI to raise <code>va_events</code> on zone dropped/rejected traffic. <code>web: security->firewall->zones-></code> Raise <code>va_events</code> for dropped/rejected traffic in this zone <code>cli: 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
	Replace GPS with GNSS	
	Restore link to google maps	7403
Web/HTTP Server	Fix typo on web UI HTTP Server TPM Key Name	8079
	Remove configuration options that are not required from web UI, fix default values and split configuration into tabs	8397
Web/Interface	Align up/down indicator centrally	7988
	Fix removal of dependent interfaces from configuration	8074
	Fix unable to select SIM1 or SIM2 from mobile interface SIM configuration option	8007
	Support default route and metric configuration on L2TP interfaces	8073
Web/IPSec	Fix crash when accessing Authentication tab on web UI	8582
	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
	Mobile status information on the web now automatically refreshes every 5 seconds	8272
	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
Web/PoE	Only show status for ports supported on hardware	8356
	Fix 500 error for unknown port power class when port is not physically present	8311
Web/Realtime Graphs	Fix active tab on Traffic page	8573
Web/SCADA	Add debug options for IEC61850 to web UI	8215
	Add reminder on web UI to save config when changes made on IECD pages	8052

	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
	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
	Fix incorrect display of value for IEC104S to Modbus TI 9, 3 and HR, DI	8385
	Fixed IECD application restarting correctly when Save & Apply button used and IEC61850 connection is active.	8214
Web/Status	Added mobile overview and routing table to web UI status overview page	6965
	Suppress link local IPv6 addresses in routing table overview	6965
Web/ Strongswan	Elliptic curve Diffie-Hellman algorithms can now be configured via the web UI when using IKEv2	7730
Web/UDS	Support UDS gzip encoding configuration via web UI	8368

10 Appendix 1: New features history

10.1 Release 25.04.35.003

No new features

10.2 Release 25.04.35.001

No new features

10.3 Release 25.04.35.000

Event System					
VA Event System now supports firewall discard event					
Event System firewall discard	Class	Id	Name	Severity	Event Template
	Firewal l	2	DiscardZon e	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.				
	Package	Section	Options		
	firewall	zone	discard_event		
					7769
Interface					
Interface Status	Include physical ports with eth-X interfaces in 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
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
Monitor					
EID Inventory	Support for inventory collection of SIM EID information				
					8030
Multiwan					

Suppress static routes	New option to suppress all static routes for an interface when it transitions to failed state			7809
	Package	Section	Options	
	multiwan	interface	suppress_all_routes_on_fail	
PPP				
BCP support	Added support for Bridge Control Protocol for bridging Ethernet packets through a PPP link. Supported for PPP and L2TP protocols.			7935
	Package	Section	Options	
	network	interface	bcp; maclocal	
Scada				
Modbus TCP	Added TCP port number to route config			7977
	Package	Section	Options	
	iecd	port	modbus_tcp_server_port	
Optional DNP3 G40 status	Support optional reporting of DNP3 G40 analog output during integrity poll			7999
	Package	Section	Options	
	iecd	port	dnp3s_g40_exclude_intpoll	
Strongswan				
VRF support	New option to bind an IPSec tunnel to a VRF.			4307
	Note: this is only supported for IPv4 ESP tunnel mode.			
	Package	Section	Options	
	strongswan	general	vrf	
SNMP				
EID OID	SIM EID now supported in VA-MODEM-MIB			8029
System				
GW6650 dual radio	Support GW6650 with dual mobile modules (machtype: MTGR5006)			7948
Multi factor Authentication	New authentication method added to PAM Authentication for MFA configuration to persist through reboot.			7152
	Package	Section	Options	
	system	pam_auth	type 'google'	
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

10.4Release 25.04.16.000

Mobile

LTE power saving mode	Support LTE PSM mode for SIMCom7070E mobile module			7841
	Package	Section	Options	
	mobile	mobile	sim1_enable_psm; sim2_enable_psm	
System				
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	passwd_hash_algo 'hmac'	

10.5 Release 25.04.13.000

AT Command Service				
AT Command Service	New router application that acts as a PSTN modem emulator/AT command interpreter. It converts PSTN data calls from asynchronous serial to TCP/IP.			
	Package	Section	Options	
	crsd	main	see user manual	
		route		
		translate		
Console				
Console disable	Support new option for disabling the console port			7802
	Package	Section	Options	
	system	failsafe	console	
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	groups	
			enabled; <code>allowed_pages</code>	
Mobile				
5G band selection	Support space separated 5G band selection.			
	Package	Section	Options	
	mobile	mobile	sim1_5g_sa_bands; sim1_5g_nsa_bands; sim2_5g_sa_bands; sim2_5g_nsa_bands	

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	
SMS security	Improvements to SMS queue processing and support new options for better control how SMS messages are handled			3976
	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
	Package	Section	Options	
	mobile	caller	allowed_commands	
Watchdog timeout behaviour	Support advanced configurable action [log reset reboot] to take when a watchdog timeout occurs for a mobile module. Currently only supported for QMI modules			5719
	Package	Section	Options	
	mobile	main	netdev_wd_action	
OpenVPN				
TPM support	Support OpenVPN keys in TPM. The existing key option should be configured to the TPM label for the OpenVPN key			7126
	Package	Section	Options	
	openvpn	openvpn	keytype; key '<TPM-label>'	
Password Management				
Multi Factor Authentication	SSH and web UI now support Multi Factor Authentication using Google authenticator			5339
	Package	Section	Options	7152
	dropbear	dropbear	multi_factor_auth	7154
	luci	main	multi_factor_auth	
Password lifetime	Support password lifetime configuration for management users. Does not apply to root password			7156
	Package	Section	Options	
	managem ent_user	user	max_passwd_age	
Password regex	Support configuring password regex rules. Applies to root password and management users password			7194
	Package	Section	Options	
	system	main	password_regex	
Password reuse	Support limiting password re-use of the last 10 management user passwords. Does not apply to root password			
PPP				
Adaptive LCP Echo	When enabled LCP echo will only be sent if no traffic is received on the interface. This avoids the situation where PPP is terminated on a congested PPP link because LCP echos are not received in time			4179
	Package	Section	Options	
	network	interface	adaptive_keepalive	

RADIUS				
NAS-Identifier option	Support new configuration option for NAS-Identifier with support for %serial and %hostname option values			7347
	Package	Section	Options	
	system	pam_auth	radius_nasid	
Scada				
AI Scaler	Extended AI scaler support <code>iecd.port.ai_scaler</code> for DNP3 slave to Modbus master conversion. The analog inputs received from the RTU are divided by the scaler before conversion to SCADA protocol. Previously only DNP3 to IEC104 supported.			7278 7506
	AI scaler now supports both divisor and multiplier			
	Package	Section	Options	
	iecd	port	ai_scaler_op	
Critical process support for IEC104	IECD now added to list of critical processes that are automatically restarted			7294
DNP3 group 40 analog output variation	Added support for DNP3 slave group 40 analog output variation			7548
	Package	Section	Options	
	iecd	port	dnp3s_g40_variation	
DNP3 relay type	Support new configuration option for specifying command point relay type			7512
	Package	Section	Options	
	iecd	cmdpoint	dnp3_relay_type	
IEC101RTR TCP Server Mode	Support TCP Server Mode for IEC101RTR IEC101 connection			6992
	Package	Section	Options	
	iecd101rtr	link101	listen_ip, listen_port	
IEC104 command point IOA	New configuration option for IEC104 master command point information object address			7579
	Package	Section	Options	
	iecd	cmdpoint	iecd104m_cmd_ioa	
IEC104 to DNP3 double command conversion	New option values [4 5] added to <code>iecd.port.dnp3_app_output_mode</code> option that determine behaviour when an IEC104 command with S/E bit is received			7423
MQTT Azure DPS	Added support for MS Azure's IOT hub Device Provisioning Service (DPS)			7028
	Package	Section	Options	
	iecd	port	see user manual	
MQTT read specific data point	MQTT can now be configured to read specific data points			
Modbus bitmap	Support bitmap handling in Modbus master			7371 7473
	Package	Section	Options	
	iecd	point	mb_bitmask	

Modbus data formats	Extend supported data format values for MODBUS data points			6890
	Package	Section	Options	
	iecd	point	mb_data_fmt; modbus_data_fmt	
Modbus DI inversion	Support DI inversion for Modbus master			7507
Modbus dual data point handling	Support dual data and command point handling for IEC104 slave to Modbus master conversion. Two Modbus registers can now be converted into a single DPI			7475
	Package	Section	Options	
	iecd	port	modbus_dual_io; modbus_index2	
Modbus frame retransmit counter	Added configuration for MODBUS master frame retransmit count			
	Package	Section	Options	
	iecd	port	modbus_max_retries	
New VHMI payload types	Add support for sending publish messages via MQTT using different payload formats			
	Package	Section	Options	
	iecd	port	vhmi_mqtt_payload_fmt; vhmi_mqtt_client_name; vhmi_mqtt_site_name	
SCEP				
TPM support	SCEP now supports key pair management in TPM			7125
	Package	Section	Options	
	strongswan	scep_cert	use_tpm; key_label	
SNMP				
Multiwan state OID	Added ifMultiwanState to VA-UCI-MIB			6915
Sim detection OID	Added SimIn to VA-MODEM-MIB			6915
SSH				
Limit concurrent users	Support new option for limiting concurrent authenticated user sessions (Mantis: 7160)			7160
	Package	Section	Options	
	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 token 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>'	

XAuth EAP support	Added support for xauth-eap and eap-radius authentication methods			6294
	Package	Section	Options	
	strongswan	connection	localauth; localauth2; remotelauth; remotelauth2	
		radius_server	enabled; address; secret; auth_port; acct_port	
System				
Busybox	Enable support for who command			6788
Change Log	Change log now records active image number and version on reboot			7728
Merlin4700 with SFP	Added support for Merlin4700 with additional SFP/Ethernet port			7717
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
Terminal Server				
Show configuration CLI command	Added support for display of running terminal server configuration CLI command cli: show config			6893
VA Events				
802.1x events	VA Event System now supports ieee8021x event class and events			
	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. web: services->mobile manager->lte			

	Added utility to list and terminate web sessions (Mantis: 7159)	
Session control	web: system->sessions cli: sessionctl	7159
Web UI theme	New restructured web UI with navigation links on left side frame.	
WeConnect		
DCU VPN Concentrator Support	Added support for DCU VPN Concentrator to WeConnect	

10.6Release 25.03.43.021

General			
Merlin4750	Support for Merlin4750 series		
Power over Ethernet			
PoE port stop/start	Power over an individual Ethernet port can now be stopped and started via the PoE status page on the web UI (Mantis: 6827) web: status->PoE		
Scada			
DNP3 Analog Set point command variation	Added new option for DNP3 Analog Set point command variation		
	Package	Section	Options
	iecd	cmdpoint	dnp3_cmd_variation (def: 0)
Update IEC104 master on DNP3 static variation change	Added new feature to transmit a spontaneous update to IEC104 master on DNP3 static variation value change		
	Package	Section	Options
	iecd	port	dnp3_tx_spont_on_static_change (def: 0)

10.7Release 25.03.43.007

Certificates		
Check both TPM and flash for certificate key	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). • When configured for PEM key and key cannot be found at the configured location, the router will try to use a TPM key with name corresponding to base file name (/etc/uhttpd.key -> "uhttpd"). • When configured for TPM key and key cannot be found in the TPM, the router will try to use file "/etc/<tpm label>.key"	
GPS		
GPS MIB support	Added support for <code>VA-GNSS-MIB</code> for retrieval of GPS values	
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 <code>cli: 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) <code>cli: multiwan.interface.retry_connection_max_sec (def: multiwan.interface.ifup_timeout_sec)</code>						
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) <table><tr><th>Package</th><th>Section</th><th>Options</th></tr><tr><td>network</td><td>interface</td><td>ignore_carrier_state (def: no)</td></tr></table>	Package	Section	Options	network	interface	ignore_carrier_state (def: no)
Package	Section	Options					
network	interface	ignore_carrier_state (def: no)					
SCADA							
MODBUS to Remote IO protocol conversion	Added support for MODBUS to Remote IO (ioservd) protocol conversions (Mantis: 6886)						
IECD VRF support	VRF support for IECD TCP based protocols (Mantis: 6784) <table><tr><th>Package</th><th>Section</th><th>Options</th></tr><tr><td>iecd</td><td>port</td><td>dnp3_vrf; dnp3s_vrf; iec61850_vrf; iec61850mX_vrf; modbus_slave_vrf; modbus_vrf; modbus1_vrf; mqtt_vrf; iec104m_vrf; iec104m1_vrf;</td></tr></table>	Package	Section	Options	iecd	port	dnp3_vrf; dnp3s_vrf; iec61850_vrf; iec61850mX_vrf; modbus_slave_vrf; modbus_vrf; modbus1_vrf; mqtt_vrf; iec104m_vrf; iec104m1_vrf;
Package	Section	Options					
iecd	port	dnp3_vrf; dnp3s_vrf; iec61850_vrf; iec61850mX_vrf; modbus_slave_vrf; modbus_vrf; modbus1_vrf; mqtt_vrf; iec104m_vrf; iec104m1_vrf;					
TPM							
List TPM keys	Support new diagnostic command to list TPM keys <code>cli: tpm-cli listkeys</code>						

10.8Release 25.03.33.004

SCADA

Serial to UDP multi-point mode	Added support for multiple UDP peers on serial port. Data received on a serial port is transmitted to all peers; data received from any peer is transmitted on the serial port. Up to 8 UDP peers supported (Mantis: 6723)		
	Package	Section	Options
	tservd	port	udpMultiPointOn (def: no); remote_ipX; udpRemotePortX

10.9 Release 25.03.23.002

No new features

10.10 Release 25.03.23.000

General			
GW6650V external watchdog	Added support for external watchdog on GW6650V hardware (Board machtype MTGR5004)		
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)
SCADA			
MODBUS TCP routes	Added support for MODBUS TCP routes (Mantis: 6643)		
	Package	Section	Options
	iecd	mbtcp_route	ifnum; devaddr, ipaddr
IECD104 Slave cyclic transmission	Support for cyclic transmission of data point messages		
	Package	Section	Options
	iecd	port	iec104_cyclic_on (def: 0)
Transparent mode offline queue	Added support for IEC104 slave offline queue when using transparent mode (no iec104s application layer)		
VRF	Support for binding IEC104 Slave socket to a VRF for isolation from general routing (Mantis: 4802)		
	Package	Section	Options
	iecd	port	iec104_ip1_vrf; iec104_ip2_vrf; iec104_ip3_vrf; iec104_ip4_vrf; iec104_ip5_vrf; iec104_ip6_vrf;
SIP			
SIP Server support	GW1151-FXS series can now also act as a SIP server (registrar). Note: Cannot be both SIP client and server		
	Package	Section	Options
	asterisk	main	bindaddress; bindport (def:5060)
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)

10.11 Release 25.03.05.000

SCADA			
TPM key storage support	Added TPM support for TLS based protocols in IEC and Terminal Server (IEC62351-9) (Mantis: 6552)		
	Package	Section	Options
	iecd	port	iec104_tls_keytype; dnp3s_tls_keytype; modbus_slave_tls_keytype; mqtt_tls_keytype; dnp3_tls_keytype; modbus_tls_keytype; modbus1_tls_keytype; vhmi_mqtt_tls_keytype (def: 0 [0=PEM, 1=TPM])
	tservd	port	tcp_tls_keytype (def: 0 [0=PEM, 1=TPM])

11 Appendix 2: Problems resolved history

11.1 Release 25.04.35.003

Module	Short Description	Mantis
Ethernet	Fix Ethernet ports failing to connect when switching from bridge to port separation on GW6650V series	8305
Mobile	Fix issue with Telit CE910-SL CDMA module not establishing mobile link	8227
	Stop flushing conntrack table every time a mobile connection fails to reconnect	8277
Multiwan	Fix issue where default gateway is lost on route change	8282

11.2 Release 25.04.35.001

Module	Short Description	Mantis
Mobile	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

11.3 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
Firewall	Support <code>vrrp</code> as valid protocol option	7906
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	Added error messages for failed connection attempts for Quectel modules in Ethernet mode	7899
	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
	Fix incorrect detection of registration status while in GPRS mode	7945

	Improve the handling of +CREG responses so that it also handles CREG mode 2	7880
	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
	Fix link loss when changing from bridge to single port	7937
	<code>ifup/ifdown</code> now correctly validate the UCI interface name before execution	6276
OpenVPN	OpenVPN interfaces are no longer deleted on <code>ifdown/network restart</code> event	7871
PPP	Fix option <code>record</code> support	8022
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
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
SNMP	Fix SNMP support for BGP. Fixes bug introduced in 25.04.16.000	7938
Strongswan	Fix kernel crash when IPSEC peer is not responding on GW6650 and Merlin4700 series	7926
System	Suppress UCI error on <code>version -a</code> command if mobile module is not initialised	7984
TPM	Fix HTTPS when keys are stored in the TPM	7922
VDSL	Fix VDSL interfaces connecting when ADSL link comes up on GW23xx	7873
Web	Do not show PoE on hardware that does not support	6967
Web/Interface	Fix network interface colours to reflect up/down status	6536
	Update interface pages to show firewall zones as colours	7988
	Allow configuration of an MTU higher than 1500 bytes	7534
Web/Mobile	Removed choice for selection of the assigned radio module. Radio selection is now done via the SIM slot selection.	7893
Web/Real Time Graph	Only show UCI network interfaces on the Realtime Traffic screen	7946
Web/Status	Do not display 802.1x, CESOP, LLDP, Mobile IP ,ADSL on status tab unless configured	6966
Web/System	Do not show HMAC password algorithm as a configurable option on hardware that does not support a TPM	7895

11.4Release 25.04.16.000

Module	Short Description	Mantis
Data Usage	Fix mobile phy detection on data usage start using faster processors	7865
Ethernet	Fix Ethernet ports intermittently reflecting incorrect state when bridging	7795
Mobile	Fix band selection for SIMCom7070E module	7833
	Fix SIMCom7070E module establishing data connection	7821
	Fixes to ensure APN information is set properly for Sierra Wireless radio modules	7777
		7797
	Fixes to ensure the manual network operator selection is executed in the right order	7797
Monitor	Log a warning that GNSS is not supported for SIMCom7070E mobile module	7822
	Fix mobile phy detection on monitor start using faster processors	7863
Multiwan		7864
	Fix crash caused by incorrect mobile phy detection on start up using faster processors	7835
System	Produce warning for interfaces that do not exist	7857
	Replace invalid spaces in hostnames with '-' at run time	7829
TPM	Fix error message when <code>tpm-cli flush</code> command is executed twice in a row	6010
Web	Prevent capitalisation of configuration section names	7856

11.5Release 25.04.13.000

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 switch issue in GW6650V and Merlin4700 series that could result in intermittent connection for LAN devices	7590
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
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
IECD	Added timestamp to <code>iecd show stats</code> diagnostics command	7339

	Enhancement to <code>iecd show config</code> command to show full config and not just main section	6894
	Fix error in converting clock value from IEC104 to UTS seconds	7022
	Fix excessive logging of DNP3 point updates	7521
	Fix serial interface name selectors for DNP3, Modbus and IEC101 to match physical port names	7180
	IEC104 to IEC101 health point now correctly sent to IEC104 master when IEC101 data link gets established	
	Improvements to IEC104 Setpoint to DNP3 Analog Output conversion	7015
IECD/ Modbus	Added bitmap handling for DI register type in Modbus master	7371
	Extend supported data format values for MODBUS data points	6890
	Fix event generation of unsolicited messages for Modbus master (serial) to DNP3 slave (TCP) when DNP3 Unsolicited Messages option is enabled in configuration	7335 7526
	Fix issue with detection of serial interface names on Merlin4400 causing inconsistency with <code>iecd.port.modbus_serial_ifnum</code> option	7051
	Fix issue with IEC104 to Modbus AI scaling	7375
	Fix missing display of point value in Web UI for Modbus to MQTT	7189
	Fix support for conversion of Modbus slave to DNP3 master	7186
	Fixed MODBUS master command not timing out when RTU does not reply	
	Improvements to Modbus trace feature	7470
	Minimum Modbus master polling time reduced from 500ms to 50ms	7228
IECD/DNP3	Added support for DNP3 analog output command g41 v1, v2, v3 and v4	
	Allow non-contiguous point indexes for DNP3 slave	7275
	Changed DNP3 master integrity poll request for class 0 static data poll	7392
	Fix converting DNP3 double precision float types to IEC104 floats	7533
	Fix DNP3 slave to IEC104 master protocol conversion	7579
	Fix incorrect float translation for group 40 var 3 and 4	7536
	Fix issue with converting DNP3 counter to IEC104 Integrated Total	7531
	Fix issue with DNP3 master in processing multi-fragment responses	7409
	Fix to provide output control feedback for DNP3 slave to MODBUS master	
	Fix transmission of spontaneous update to IEC104 master on DNP3 static variation value change	7410
	Fixed issues in DNP3 slave processing Binary Output and Analog Output commands	7548
	Implemented common DNP3 trace functions for slave and master side	7557
	Implemented several new features for IEC104 to DNP3 double command conversion	7423
	Improve DNP3 slave processing of Binary and Analog Commands; now allow all combinations of OpCode and TCC fields: LATCH_ON, LATCH_OFF, CLOSE, TRIP	
	Increased size of DNP3 analog output block buffer to handle possible size of variation 4 – 64 bit double with single byte status	

IECD/MQTT	Fix data point map value update with Modbus master to MQTT conversion that generates events to MQTT subscribers	7465
	Increased supported character length for MQTT topic name, client id and client name	7173
IECD/VHMI	Fix issue related to DPS not starting for VHMI MQTT mode	7081
	Fix to report data point by VHMI only when value changes	
Mobile	Allow backslash '\' in username and password	7360
	Custom interface DNS now supported by Unitac modules	7192
	Ensure 5G networks are presented in operator search results	7219
	Fix 5G band selection for Quectel RM500Q module	7703
	Fix 5G NSA mode when service is set to 5G	7469
	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
	Improve behaviour on network down for QMI connections to ensure reconnection after network outage	6325
	Improve distributed processing between cores to improve mobile 5G throughput on Merlin4750 series	7346
	LTE band locking configuration option <code>simX_lte_bands</code> now supports space separated bands	
	<code>sendsms</code> command now handles '+' at the beginning of international numbers	
Network	Split registration check and signal check on Merlin4750 to avoid overload on Quectel RM520 5G module which could result in module no longer responding to AT commands	7296
	Unitac modules now use <code>wwan0</code> interface rather than <code>eth0</code>	6899
	Add interface name and state for aliases to <code>network_status</code>	6716
	Fix dependant interfaces starting correctly on a network restart	7598
	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 openvpn restart	7735
SCEP	Fix certificate expiration date calculation	7572
	SCEP ATQ time now synchronised with NTP	7083
Serial Broadcast Server	Fixed incorrect handling of TCP connection to Terminal Server	7231
SNMP	Fix UCI MIB <code>ifName</code> truncation	6981

	SNMP <code>engineID</code> now has fixed value that persists through reboot	7355 7358
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
TACACS	Fix IPv6 support	6620
Terminal Server	Start serial device in RS232 mode to ensure terminal server initialises correctly	7009
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
Web/ Interfaces	Ensure interface names are not automatically capitalized on the web UI	7678
	Remove PPTP protocol from available interface protocols	7354
Web/ Modbus	Fix display of IECD status page to show data points	7170
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
Web/Firewall	Support firewall rule <code>chain</code> option <code>web: security->firewall->traffic rules</code> <code>cli: firewall.rule.chain</code>	6898
Web/IECD	Change MODBUS serial interface presentation to a selection of detected serial interface names	
	Changed IEC104 TI option to list value instead of range	
	Fix delete button on web UI for IECD	7181
	Fix incorrect display of values in DNP3 slave to DNP3 master mode	7571
	Fixed web UI error in setting value range for IEC104 link number	6911
	IEC61850 client web UI enhancements	6600

	Improvements for IECD command points	7015
		7019
	Improvements to MODBUS master configuration	
	Improvements to VHMI web configuration	7062
Web/IOSERV	Add support for upload of CID file	6897
Web/Mobile	Added display of LTE bands supported by SIMCom7070E	7565
	Fix 5G band selection	7469
		7703
	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. <code>web: services->mobile manager->lte</code>	
Web/Realtime Graphs	Fix display of Realtime Graphs for mobile interfaces <code>web: 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 <code>web: security->ssh->Identity</code> <code>cli: dropbear.dropbear.Identity</code> <code>web: security->ssh->Verbose</code> <code>cli: dropbear.dropbear.verbose</code> <code>web: security->ssh->VRF</code> <code>cli: dropbear.dropbear.VRF</code>	6703
Web/VHMI	Fix broken upload of DPS private key file	
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
	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
xDSL	Fix <code>dsl</code> command output if DSLAM info is not available	6990
	Fix xDSL diagnostic 'Transfer Power' units to dBm from dB	7140
	Reduce unwanted DSL diagnostics messages filling up syslog	6908

11.6Release 25.03.43.021

Module	Short Description	Mantis
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IECD	Fix clock sync time in IEC101 <code>force_clock_sync</code> to use local time instead of UTC	7208
	Fixed issue with IEC104 clock synchronization on conversion from CP56TIME2A to time format where memory was not being cleared correctly	
	Improvements for Analog Input integer to float conversion for IEC104 to DNP3	
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 PDP context is deactivated before attempting to establish connection to avoid issue with connection attempt	7168
	Ensure Unitac module comes back in ECM/VLAN mode after factory reset	
	Fix detection of Quectel RM520N 5G mobile module running latest module firmware (RM520NGLAAR01A07M4G)	
	Fix Quectel RM520N restart after switching to QMI mode	7243
	Fix selection of bands above band 63 for SIMCom7600G-H	7356
	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	
PoE	Fix missing event on powered device disconnect	7195
Strongswan	General improvements to memory usage	
Syslog	Fix syslog to use local time instead of UTC	7240
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/IECD	Added selector lists in place of fixed values where possible	
Web/OSPF	Support configuration of OSPF VRF via web UI web: network->ospf->global settings->VRF cli: ospfd.routing.vrf	6964
Web/PoE	Modifications to a PoE port configuration via the web UI no longer result in the other PoE ports being reset Web UI now correctly displays the number of PoE ports available	6827
Web/PoE Status	Web UI PoE Status enhancements - Fix values table values when device not connected; Add power info; Remove volts and current;	7166 7198 7199
Web/Realtime Graphs	Fix web UI real time graphs for QMI mobile connections web: status->Realtime Graphs	7029
WeConnect	Fix support for WeConnect	6793 7218

11.7Release 25.03.43.007

Module	Short Description	Mantis
Activator	Set model URL parameter to uimodel rather than machtype in updates to Activator	6761
BGP	Fix local VRF IP subnet not being advertised over WAN VRF using a BGP instance in the same VRF	6799
CLI	Improve error message for <code>uci show xy</code> when <code>xy</code> does not exist	
DSL	Disabled DSL restart using <code>/etc/init.d/dsl_control restart</code> for Merlin 6650V and Merlin4700 series as not supported	
	Fix generic MAC address assigned to VDSL interface on GW6650V and Merlin 4700 models	6892
	Reduce interface bounce when DSL line conditions change on poor line which could lead to interface not working	6958
	Report correct DSL analogue front end on GW6650V and Merlin4700 models	6802
Ethernet	Add <code>arp-scan</code> utility to DRS, ORK and SXL families for consistency with EDG family <code>cli: arp-scan -l</code>	5829
	Assign correct Ethernet port MAC addresses at startup on GW6650V and Merlin 4700 models	6913
	Support configuration of speed/duplex/autoneg on GW6650V and Merlin4700 models	6849
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
IECD	Fix IEC104 operation when IEC104 local TCP port configured to '0'	6778
	Fix unwanted Health Point updates during normal master switchover for IEC104 RTU's	6463
	Fixed Modbus master initialisation error when loading TCP routes	6803
	IEC61850 Server: Add conversion from Modbus DI to DPS objects	
	IEC61850 Server: Added mapping of Modbus DI to integer types (INS, etc)	
	IEC61850 Server: Fix error with double init of data points for Modbus master	
Mobile	IEC61850 Server: Update points from Modbus RTU when point have not been changed before in addition to when value changed	
	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	6676

	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 signal strength detection on older Unitac modules	6805
	Fix to ensure the Verizon attach APN is set correctly	
	Only restart interfaces when Network Initialisation was indicated in OMADM	
	Switch to <code>AT!GSTATUS</code> 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 <code>vaUciMib</code> implementation so that it matches the previous implementation	6903
	Fix SNMP configuration using TCP protocol	5930
	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	
	Ping internal watchdog every second to reduce unwanted resets on hardware without an external watchdog (machtype MTGR5002)	5930
VLAN	Fix VLAN bridging on Merlin and GW6650V models	6768 6844
	Fix VLANs on WAN Ethernet port	6994
Web	Fix error message typo when SSL subsystem fails to initialise	
	Fix slow web SSL access when using keys from TPM	6734
	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/ Network	Fix broken <code>ifstatus</code> preventing web UI from operating correctly on GW6650V and Merlin4700 models	6921
Web/Cwatch	Fix display of bridge interface on Cwatch interface list	6824
Web/Firewall	Fix summary page showing rules with <code>option enabled '1'</code> in configuration file as disabled	6765
Web/HTTP Server	Support configuration certificate keys in TPM <code>web: services->http server->Certificate Key Format</code> <code>cli: uhttpd.uhttpd.keytype [PEM TPM]</code>	6756
Web/Mobile	Correct display of mobile interface type on web UI interface overview page	6787
Web/SCADA	Moved COSEM HDLC Bridge configuration from Services to SCADA tab	6781
Web/Status	Add download button for kernel and system log <code>web: status->System Log</code> <code>web: status->Kernel Log</code>	6794
Web/System	Restore javascript validation preventing underscores in system hostname	4555

11.8Release 25.03.33.004

Module	Short Description	Mantis
Cwatch	Fix cwatch using cached interface values rather than current values which caused cwatch to intermittently miss state changes	6784
DSL	Added support for low level DSL diagnostics cli: dsl cmd	
	Fix DSL crash that could occur when disconnecting and reconnecting DSL line	6682 6698
	Use VDSL firmware v8.13.1.12.1.7 to fix operation on retransmission enabled lines	
Ethernet	Fix Ethernet port separation when removing port from bridge	6744 6749
IECD	Improve debugging of IEC61850 client when processing control commands	
Mobile	Rename 'phone number' to 'MSISDN' in mobile stats	
Network	Fix non-auto interfaces staying UP when VDSL link lost	
VRF	Fix DNAT behaviour for alias interface within VRF	6705
Web/ IPsec	Fix error on saving of configuration general section	6281
Web/ Network	Show colour codes for interface status in network overview	6536
Web/ OpenVPN	Automatically add and remove OpenVPN network interfaces	6296
Web/DSL	Show xDSL web menu option even when DSL line is not trained	6737

11.9Release 25.03.23.002

Module	Short Description	Mantis
DSL	Fix OAM loopback on VLAN interfaces	

11.10 Release 25.03.23.000

Module	Short Description	Mantis
Activator	Fix Activator active update command returning incorrectly parsed IPv6 addresses	4727
BGP	Enable FRR SNMP support on GW6650V and Merlin4700 series	5758
CWATCH	Cwatch now ignores non-existing UCI network interfaces	6644
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
IECD	Fix issue in IEC104S to IEC101 in transparent mode, where 104 ASDU CA=65535	
	Fix issue processing IEC101 reset process response	

	Fix issue with DNP3 Gr3 (double bit) to IEC104 single point conversion	6671
	Fixed incorrect cleanup while closing during IEC104S TLS session establishment	6636
	Fixed issues with events not sent from IEC104 slave offline queue after connection is restored	6648
	Fixed issues with processing TI 105 Reset Process command	6640
	IEC104 slave: Fixed incorrect application of clock synchronization command	
	IEC104 to IEC101 conversion: fixed issue with converting QU field of commands from Master (104) to RTU (101)	
	IEC104 to IEC104 conversion: Fix Double command Execute part of Select Execute sequence not passing on QU field of command	6656
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 performance issues on Sierra Wireless modules (introduced in 25.02.80.000)	6708
	Prevent crash when handling SIMs with invalid ICCID	6635
	Prevent crash when no SIM slot specified for SIM switch command	
	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
SSH	Fix SSH login via private and public key.	6425
TACACS	Fix ipv6 address support	6620
VDSL	Enable support for OAM loopback	
	Fix switching line_mode config between ADSL and VDSL	
Web	Sort web UI drop down headings	5909
Web/ Multiwan	Allow multiwan configuration via web UI when no multiwan config options exist in configuration file	
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/IECD	Changed default location of TLS certs to <code>/etc/cert</code>	6643
	Only show IEC104 TLS Common Name and IEC104 TLS Verify Depth options when IEC104 TLS Validate Peer Cert is enabled	6643
	Removed unused <code>iec101_cmd_type_id</code> option from web UI	6627

	Support SCL import file upload for IEC61850 master web: scada->iecd->master protocols->configure IEC61850->Select IEC61850M SCL File for Upload	
	Support upload capability for TLS cert, key and CRL files via web UI	6643
Web/IPsec	Web UI IPSEC configuration improvements	6281
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

11.11 Release 25.03.05.000

Module	Short Description	Mantis
IECD	Added RTS-CTS flow control of the serial (when not using tserverd)	6615
	Added TPM integration for TLS based protocols in IECD and Terminal Server (IEC62351-9)	6552
LED	Fix Merlin4700 series WAN port LED operation	6632
Mobile	Fix missing LTE band information on older Unitac firmware	6630
	Prevent +CGEV: NW DETACH trigger warnings in the logs	6616
	Remove MIMO check for Unitac modules	
Routing	Enable FRR vty_enabled option in user interface	6613