



ORK Software Release Notes GW1150/1400/2124P/2300/3300D Series

Release ORK-25.05.24.000

Hardware Models	GW1150; GW1400; GW2124P; GW2300; GW3300D
Revision	1.00.29
Approval status	Approved
Date:	17 February 2026
Brief description	Details the release of system software ORK-25.05.24.000 for GW1150/1400/2124P/2300/3300D Series

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1 Revision history

Date	Revision	Description
03 May 2019	1.00.00	Release notes for ORK-22.00.82.000
26 August 2019	1.00.01	Release notes for ORK-22.00.88.000
06 September 2019	1.00.02	Release notes for ORK-22.00.89.000
12 December 2019	1.00.03	Release notes for ORK-22.00.90.000
20 December 2019	1.00.04	Release notes for ORK-22.00.93.000
15 April 2020	1.00.05	Release notes for ORK-22.00.96.000
03 December 2020	1.00.06	Release notes for ORK-25.01.40.004
16 December 2020	1.00.07	Release notes for ORK-25.01.40.016
18 January 2021	1.00.08	Release notes for ORK-25.01.40.019
12 February 2021	1.00.09	Release notes for ORK-25.01.40.028
12 May 2021	1.00.10	Release notes for ORK-25.01.40.033
09 September 2021	1.00.09.001	Release notes for ORK-22.01.40.028 (Gateway PRL)
06 December 2021	1.00.11	Release notes for ORK-25.02.14.000
01 March 2022	1.00.12	Release notes for ORK-25.02.14.009
13 May 2022	1.00.13	Release notes for ORK-25.02.14.016
23 May 2022	1.00.14	Release notes for ORK-25.02.14.024
23 June 2022	1.00.15	Release notes for ORK-25.02.14.027
29 July 2022	1.00.16	Release notes for ORK-25.02.14.032
01 November 2022	1.00.17	Release notes for ORK-25.02.95.000
25 April 2023	1.00.18	Release notes for ORK-25.03.35.000
17 May 2023	1.00.19	Release notes for ORK-25.03.37.000
22 May 2023	1.00.20	Release notes for ORK-25.03.43.000
06 October 2023	1.00.21	Release notes for ORK-25.03.43.010
08 April 2024	1.00.22	Release notes for ORK-25.03.43.019
25 April 2024	1.00.23	Release notes for ORK-25.03.43.021
27 August 2024	1.00.24	Release notes for ORK-25.04.16.000
13 December 2024	1.00.26	Release notes for ORK-25.04.38.001
27 March 2025	1.00.27	Release notes for ORK-25.04.38.003
08 April 2025	1.00.28	Release notes for ORK-25.04.38.004
17 February 2026	1.00.29	Release notes for ORK-25.05.24.000

2 Release statement

ORK-25.05.24.000 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)
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2.2 Hardware platforms

Model	Processor	Details
GW1150	Sierra Wireless	Single radio LTE/3G wireless router with single 10/100Mbps Ethernet. Optional second Ethernet, serial interface, FXS, WiFi, GPS.
GW1400	Dakota	Single radio 5G/LTE/3G wireless router with WiFi and dual 10/100/1000Mbps Ethernet.
GW2124P	Sierra Wireless	Single radio wireless router with dual 10/100Mbps Ethernet
GW2300	Dakota	LTE/3G wireless router with GPS and 2 or 4 port 10/100/1000Mbps Ethernet switch. Optional Power over Ethernet, WiFi, Dual Radio, ADSL2+/VDSL, serial interface and digital IO.
GW3300D	Dakota	Dual radio LTE/3G/CDMA450 wireless router with WiFi, GPS and 4 port 10/100/1000Mbps Ethernet switch. Optional USB, CAN, serial interface, digital IO.

2.3 Important upgrade information

2.3.1 Upgrade from ORK-22.00.93.000 (and earlier)

Due to a new unified versioning schema across all GW series software families ORK releases after ORK-22.01.96.000 contained a change in the MAJOR version number (previously 22, now 25).

Older firmware contains safety checks to ensure that the MAJOR firmware version matches before allowing firmware upgrade. More recent ORK firmware relaxes this check to allow seamless upgrade from ORK-22 to ORK-25 versions.

In order to accommodate this change, ORK-25.01.40.028 was accompanied with a gateway release ORK-22.01.40.028 (functionally identical to ORK-25.01.40.028).

Please follow the steps below for upgrade:

Running firmware	Upgrade procedure
<= ORK-22.00.93.000	Upgrade to ORK 22.01.40.028 before to upgrade to ORK-25.01.40.028 or later
> ORK-22.00.93.000	Upgrade directly to ORK-25.01.40.028 or later

2.3.2 Upgrade to ORK-22.00.88.000

ORK-22.00.88.000 and later firmware contains an important uboot change. Once installed it will automatically copy to the alternate image to ensure that both image segments are the new firmware version.

Once the new firmware is installed, firmware versions prior to ORK-22.00.88.000 will not run correctly without a manual uboot environment variable change. If there is a requirement to roll back to a previous firmware version, please follow the steps below:

2.3.2.1 Rollback steps

- Download required firmware version to altimage
- Set uboot machtype to 'DTB'. To do this enter **fw_setenv machtype DTB**
- Set next image altimage. To do this enter **vacmd set next image altimage**
- Reboot

3 Mobile module support

3.1 5G modules

Firmware	Vendor	Module	3G	LTE	5G
25.02.85.000	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
25.01.40.004	Quectel	RM500Q-GL	1,2,3,4,5,8,9,19	1,2,3,4,5,7,8,12,13,14,20,25,26,28,29,30,32,38,39,40,41,43,46,48,71	1,2,3,5,7,8,20,28,41,66,71,77,78,79

3.2 LTE modules

Firmware	Vendor	Module	Cat	2G	3G	LTE
25.04.16.000	Quectel	EM060K-EA	6	-	1,3,5,8	LTE-FDD: 1,3,5,7,8,20,28,32 LTE-TDD: 38,40,41
25.03.43.019	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
25.03.43.005	Sierra Wireless	WP7702	M1	850/900/ 1800/1900	-	B1, B2, B3, B4, B5, B8, B12, B13, B17, B18, B19, B20, B26, B28
25.02.80.000	Unitac	ML620DE	4			B3, B7, B20, B72

25.02.14.027	Sierra Wireless	WP7609-G	4	-	B1, B8	B1, B3, B5, B8, B40, B41
	SIMCOM	SIM7070E	M1	850/900/ 1800/1900		B1, B2, B3, B4, B5, B8, B12, B13, B14, B18, B19, B20, B25, B26, B27, B28, B31, B66, B72, B85,
	Unitac	ML620EU	4			B3, B7, B20, B31, B72
		ML660P	4			B3, B20, B87
25.02.14.000	Sierra Wireless	WP7607-G	4	900/1800	B1, B8	B1, B3, B7, B8, B20, B28
		WP7608-G	4	900/1800	B2, B4, B5	B2, B4, B5, B12, B13, B14, B17, B66
		WP7610-G	4	-	B1, B5, B8	B1, B3, B5, B7, B8, B28
22.00.96.000	Quectel	EG25-E; EG25-AF; EG25AUT; EG21E; EG20E; EG25G	4			
		EM06; EM06E	6			
22.00.90.000	Quectel	EC25-EU	4			
22.00.82.000	Quectel	EC25-AU	4			
	SIMCOM	SIM7600E-H	4			

4 Security fixes

Firmware	Module	Description	Severity	Mantis
25.05.24.000	dropbear	Support SSH-ed25519 host key	Low	8933
	luci	Added Security-Policy-Header (CSP) to prevent clickjacking	Low	8087
	system	Fix file security permissions	Low	6406
		Force root password change on first log in for routers shipped with default credentials	Low	8743
		Mask sensitive information in audit logs	Low	8365
		Support configurable data at rest encryption	Low	6947
25.04.36.000	jquery	Updated to version 3.7.1	Medium	7914
	net-snmpd	Updated to version 5.9.4	Medium	7306

		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		
	openVPN	Updated to version 2.5.11 Fixes CVE-2022-0547	Irritant	6238
	pam_tacplu s	Avoid potential freeing of non-address Fixes CVE-2020-27743 and CVE-2016-20014	Medium	8002
25.04.16.000	dnsmasq	Updated to version 2.90	Medium	7796
	dropbear	Updated to version 2024.85	Medium	7560
	frr	FRRouting (FRR) does not check the actual remaining stream length before taking the TLV value.	Medium	7858
	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.	-	6721
	uhttpd	Support TLS v1.3 (IEC62443-4-2).	-	6854
25.03.43.005	console	Automatically log out console sessions after 30 mins if inactivity	Low	6884
25.03.23.000	telnetd	Remove telnetd support	Medium	
	password	Resetting password via web UI now requires input of current password	Low	5261
	SSH	Added grace period after console login failure to disrupt brute force attacks	-	5853
25.02.80.000	dnsmasq	Updated to 2.85. Fixes CVE-2021-3448	-	6041
	gpsd	Updated to 3.23.1	-	
	overlay	Implemented automatic overlay clean up to remove ad hoc modifications	-	5374
	snmpd	Application now runs with dedicated unique user and group id instead of root privileges	-	4695
25.02.14.000	arp-scan	Upgraded to version 1.9.7	-	
	iecd	COTP: fixed possible heap buffer overflow when handling message with invalid (zero) value in length field). Fixes CVE-2020-7054	-	5320
	iproute2	Upgrade to version 5.13.0	-	
	uClibc	Upgrade to version 0.9.33.2	-	

25.01.40.033	chrony	Upgraded to v3.5.1	-	
	dnsmasq	Upgraded to v2.84 to fix vulnerabilities in DNS response validation Fixes CVE-2020-25684 CVE-2020-25686	-	5618
25.01.40.004	iecd	Support for secure Modbus TCP with introduction of modbus TLS security extension	-	
	tserverd	TLS support for TCP server and TCP client mode	-	
22.00.96.000	chrony	Disable internet command sockets	-	4995
	chrony			4964
	dropbear			4965
	iecd			4966
	iosrpd			4968
	openvpn	Applications now run with dedicated unique user and group id instead of root privileges	-	4970
	rtud			4971
	snmpd			4973
	strongswan			4974
	tserverd			5003
	xl2tpd			

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

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

	Support new options to specify maximum permitted jitter and latency				
Jitter and latency detection	<u>Package</u>	<u>Section</u>	<u>Options</u>	8095	
	cwatch	watch	icmp_jitter_check_enabled; icmp_max_jitter; icmp_latency_check_enabled; icmp_max_latency; icmp_max_average_latency		
Ping interval configuration	Support configuration of cwatch ping interval. Previously hardcoded to 10 seconds.			7350	
	<u>Package</u>	<u>Section</u>	<u>Options</u>		
	cwatch	watch	icmp_interval		
Dropbear					
Ed25519 support	Support SSH-ed25519 host key for SSH server authentication			8933	
SSH algorithm configuration	Support configuration of cipher, host key and key exchange algorithms for SSH connections			8344	
	<u>Package</u>	<u>Section</u>	<u>Options</u>		
	dropbear	dropbear	cipher; sign_algo; kex_algo		
Dropbear					
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	
	<u>Package</u>	<u>Section</u>	<u>Options</u>		
	network	xdsl-device	operator; dsl_noiseadjust		
Event System					
Multiwan events	Added multiwan class and events for group start, interface acquisition and interface state changes to the Event System			8807	
	<u>Class</u>	<u>Id</u>	<u>Name</u>	<u>Severity</u>	<u>Event Template</u>
	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 Client					
SSL cipher configuration	Added support for configuration of supported SSL ciphers			8367	
	<u>Package</u>	<u>Section</u>	<u>Options</u>		
	httpclient	core	TLS13Cipher; LegacyCiphers		
HTTP Server					
TLS cipher configuration	Added support for limiting allowed TLS ciphers			7121	
	<u>Package</u>	<u>Section</u>	<u>Options</u>		
	uhttpd	uhttpd	tls_ciphers		

Mobile			
Telit Cinterion support	Support Telit Cinterion TX62-W-C LTE-M mobile module		8988
Multiwan			
Jitter and latency detection	Support new options to specify maximum permitted jitter and latency for a multiwan interface		
	<u>Package</u>	<u>Section</u>	<u>Options</u>
	multiwan	interface	icmp_jitter_check_enabled; icmp_max_jitter; icmp_latency_check_enabled; icmp_max_latency; icmp_max_average_latency
			8435
Network			
Link Layer Discovery Protocol	Added support for LLDP functionality.		
	<u>Package</u>	<u>Section</u>	<u>Options</u>
	lldp	lldp	enabled; readonly_mode; interfaces; mgmt_ip; description
			8505
Multi Path Routes	Support for Equal Cost Multi Path (ECMP) feature. Route has a single target but multiple gateway/interface pairs to route over.		
	<u>Package</u>	<u>Section</u>	<u>Options</u>
	network	mp_route	paths; target, netmask, metric, mtu, mark
		mpath	interface; gateway, weight
			8219 8250
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		
	<u>Package</u>	<u>Section</u>	<u>Options</u>
	system	timeserver	initial_sync_only_enabled
			8929
OpenVPN			
Two factor authentication	Added support for 2FA for OpenVPN using PAM module. New server-side authentication of client provided username and password against local PAM.		8098
	<u>Package</u>	<u>Section</u>	<u>Options</u>
	openvpn	openvpn	pamauth_enabled
	system	pam_auth	pamservice 'openvpn'
			8543
Password Management			
ERE regex support	Support Extended Regular Expressions (ERE) for password regex rules		8905
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

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 t_user</td> <td>user</td> <td>change_password_on_first_login</td> </tr> </tbody> </table>	Package	Section	Options	managemen t_user	user	change_password_on_first_login	
Package	Section	Options						
managemen t_user	user	change_password_on_first_login						
Root password lifetime	Extend password lifetime support to cover root management users	8749						
Routing								
PIM Multicast	PIM multicast support is now available via the FRR module	8362						
Scada								
Automatic IEC104 point configuration	Support automatic IEC104 point configuration after IEC61850 SCL file import	8248						
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 G10 and G41	Support conversion from DNP3 Binary Output Command G10 and G41 to IEC60870-5-101	8100						
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>iecd</td> <td>point</td> <td>iec101_qu</td> </tr> </tbody> </table>	Package	Section	Options	iecd	point	iec101_qu	
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 <code>_link2_options</code>	8313						
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>iecd</td> <td>port</td> <td>dnp3_num_links; dnp3_transport_protocol 'multidrop'; dnp3_link2_transport_protocol 'multidrop'</td> </tr> </tbody> </table>	Package	Section	Options	iecd	port	dnp3_num_links; dnp3_transport_protocol 'multidrop'; dnp3_link2_transport_protocol 'multidrop'	
Package	Section	Options						
iecd	port	dnp3_num_links; dnp3_transport_protocol 'multidrop'; dnp3_link2_transport_protocol 'multidrop'						
Health Point multiple RTU tracking	Added support for health point list to track data link state of multiple RTUs	8687						
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>iecd</td> <td>point</td> <td>iec104_track_rtu_hp_ioa</td> </tr> </tbody> </table>	Package	Section	Options	iecd	point	iec104_track_rtu_hp_ioa	
Package	Section	Options						
iecd	point	iec104_track_rtu_hp_ioa						
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						
IEC104S ActTerm	Added ability to skip waiting for <code>ACTTERM</code> message as some clients and servers do not support it	8624						
	<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>iec104_no_tx_act_term; iec104m_nowait_act_term</td> </tr> </tbody> </table>	Package	Section	Options	iecd	port	iec104_no_tx_act_term; iec104m_nowait_act_term	
Package	Section	Options						
iecd	port	iec104_no_tx_act_term; iec104m_nowait_act_term						

IEC61850 extended RTU support	Added support for up to 30 local RTUs for IEC104 to IEC61850 protocol conversion	8353 8570						
MQTT SNI extension	Support for Server Name Indication (SNI) extension. SNI is part of TLS client hello and contains a copy of server hostname - required by some MQTT brokers to authenticate the connecting client	8851						
MQTT upload certs	Support upload of certificates for MQTT Server							
SNMP Master Protocol	Support SNMP protocol as a new master RTU protocol	8928						
VRTU data types	Support VRTU data types and periodic auto updating per point	8233						
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>iecd</td> <td>point</td> <td>virtu_value_type; virtu_value_init; virtu_periodic_value_change</td> </tr> </tbody> </table>		Package	Section	Options	iecd	point	virtu_value_type; virtu_value_init; virtu_periodic_value_change
Package	Section	Options						
iecd	point	virtu_value_type; virtu_value_init; virtu_periodic_value_change						
SCEP								
Cisco CA Type	Support CA Type 'cisco' in SCEP Client	8464						
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>strongswan</td> <td>scep_cert</td> <td>caimpl 'cisco'</td> </tr> </tbody> </table>		Package	Section	Options	strongswan	scep_cert	caimpl 'cisco'
Package	Section	Options						
strongswan	scep_cert	caimpl 'cisco'						
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						
	<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						
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						
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>strongswan</td> <td>connection</td> <td>remoteauth 'xauth-pam'; remoteauth2 'xauth-pam'</td> </tr> </tbody> </table>	Package	Section	Options	strongswan	connection	remoteauth 'xauth-pam'; remoteauth2 'xauth-pam'	8543
	Package	Section	Options					
strongswan	connection	remoteauth 'xauth-pam'; remoteauth2 'xauth-pam'						
<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>system</td> <td>pam_auth</td> <td>pamservice 'ipsec'</td> </tr> </tbody> </table>	Package	Section	Options	system	pam_auth	pamservice 'ipsec'		
Package	Section	Options						
system	pam_auth	pamservice 'ipsec'						
System								
CPU temperature	Added support to show CPU temperature cli: showtemp	6478						
Factory Reset	New factory reset from command line with customised reset behaviour control cli: va_factory_reset.sh	8974						

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						
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>rollback</td> <td>core</td> <td>enabled; timer</td> </tr> </tbody> </table>	Package	Section	Options	rollback	core	enabled; timer	
Package	Section	Options						
rollback	core	enabled; timer						
GW2306 5G	Added support GW2306 dual radio variant with LTE module and 5G mobile using <code>MTDAK003</code> machtype	8629						
Overlay Encryption	Added support for data at rest encryption	6947						
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>system</td> <td>failsafe</td> <td>encrypt_overlay</td> </tr> </tbody> </table>	Package	Section	Options	system	failsafe	encrypt_overlay	
Package	Section	Options						
system	failsafe	encrypt_overlay						
Web UI								
Authentication	PAM configuration moved to Security section web: <code>Security->Authentication</code>	8787						
Certificate Management	Enhancements to Certificates Management page <ul style="list-style-type: none"> Support deletion of individual keys and certificates Add <code>uhttpd</code> key management. Add display of DER-encoded certificates	8464						
	New web UI page added for management of certificates and keys web: <code>security->certificates</code>	8464						
Connection Watch	Individual tabs for each connection watch configuration and new cwatch status page added to web UI web: <code>Status->Connection Watch</code>	6973						
Customised factory reset	Added Factory Reset, Factory Reset and Certificate Deletion and Reset for Decommissioning operations web: <code>System->Flash Operations</code>	8403						
Decommission	Added warning pop up for confirming Reset for Decommissioning press	8677						
Event System	Add Ethernet LinkUp/LinkDown events to event filters list	8792						
GNSS	Add sky view for GNSS satellites	8537						
	Automatically refresh GPS satellite information every 5 seconds	8537						
HTTP Server	Support disabling web UI option in web UI web: <code>Security->HTTP Server->Enable this web UI</code> cli: <code>uhttpd.main.webui_enabled</code>	8730						
IPSec	Add IPSec status to Status Overview when IPSec is enabled	6965						
Inventory	Support SNMP inventory configuration web: <code>system->snmp->Inventory</code> web: <code>system->snmp->IF Table</code>	9000						
Log in	Support force password change via web UI	8743						
Mobile Roaming Manager	Support Mobile Roaming Manager network configuration via web UI web: <code>network->interfaces->mobile interface->Roaming Manager</code>	6976						

Multiwan	Individual tabs for each Multiwan interface. Configured interfaces now presented as selection rather than text	8435
	Support Mobile Roaming Manager multiwan configuration via web UI web: network->multiwan->wan interfaces->general->Interface Scanning Timeout opt: multiwan.interface.ifup_scanning_timeout_sec web: network->multiwan->wan interfaces->general->Retry on first fail opt: multiwan.interface.retry_on_first_fail web: network->multiwan->wan interfaces->general->Connection Retry Timeout opt: multiwan.interface.retry_connection_max_sec	6976
OpenVPN	Support push routes for OpenVPN server mode web: VPN->OpenVPN->Advanced->Push cli: list push 'route <ip> <mask>'	8712
PPPoE interface	Support configuration of multiple PPPoE interfaces on the same Ethernet link	4287
SCADA	Added display of statistic counters to IECD status page cli: iec show stats	8338
	Enhancements to DNP3S point group ID selector configuration	8514
	Move MQTT Topic configuration options into a separate tab	8685
	Move VHMI configuration into a separate tab	8530
	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 Enhancements to SCEP Client configuration <ul style="list-style-type: none"> Moved SCEP Client configuration to Certificate Management page add check for PSK length Added SCEP Client status
SSH	Removed <code>kex-strict-s-v00@openssh.com</code> from the web UI list of configurable SSH key exchange algorithms. It is now always added to the allowed key exchange algorithm list.	8917
STP Status	Added Spanning Tree Protocol status of bridge interfaces web: status->stp status	8791
System	Support masking of passwords in configuration audit logs web: system->audit configuration->Mask Passwords cli: system.system.audit_cfg_mask_passwords	8365
Time Synchronisation	Support NTP time sync on boot configuration web: system->time synchronization->Enable Boot-Time Only Time Sync	8929

User-Defined Scripts	Individual tabs for each UDS and new UDS overview page			8361
WiFi				
Device limiting	Support new option for limiting devices on a WiFi interface			7925
	Package	Section	Options	
	wireless	wifi-iface	maxassoc	

7 Deprecated features

Firmware	Package	Description	Mantis
25.05.24.000	mobile	Removed support for downloading a factory config via a SIM card	8373
	network	Mobile operator lock <code>option opformat</code> deprecated. Operator locking (<code>option operator</code>) now only uses PLMN ID.	8254
	OpenVPN	Removed <code>openvpn_recipies</code> package	8504
	SCEP	Deprecated <code>strongswan.scep_cert.blocking</code> option. SCEP client will now trigger a strongswan reload should the cert be in use by strongswan	8377
	zabbix	Removed Zabbix agent	8469
25.05.24.000			
25.04.36.000	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
25.04.16.000	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
25.02.14.010	WiFi	<code>wireless.wifi-device.type</code> option deprecated	
25.02.14.000	Analogue Relay	Removed analogue relay daemon (<code>ard</code>)	
	dnsmasq	Removed <code>dhcp.dnsmasq.nodaemon</code>	

	fxs	Replaced config section <code>main</code> with config section <code>interface</code>
25.01.40.033	upnp	Removed miniupnp
22.00.96.000	Wget	Removed wget busybox applet
22.00.90.000	Mobile	<code>disable_time</code> option removed from mobile package
	IEC104 Gateway	<code>iec104_time_tagged_cmds</code> no longer supported
22.00.88.000	Multiwan	Disabled <code>mwan3</code> package due to conflict with multiwan package
	Web	Removed ability to disable critical system services via web UI at <code>administration -> startup</code>

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
DDNS	DDNS not starting due to permission errors	8803
Ethernet	Unable to configure speed, duplex and autoneg on GW1150 series	8455
GPS	No GPS support for SIMCOM7070	
IECD	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	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
	No error is generated when invalid firewall rule configured	9004
	SCEP certificate status not updated upon deletion	8998

	Unable to configure <code>ie61850m_poll_delay_ms</code> , <code>ie61850m_poll_time_secs</code> , <code>ie61850m_dspoll_time_secs</code> and <code>ie61850m_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
xDSL	<code>/etc/init.d/dsl_control restart</code> does not bring down the physical connection on GW2300 models.	5689

9 Problems resolved

Module	Short Description	Mantis
Asterisk	Ensure correct data length is used when piggyback data is present	7876
BCP	Fix BCP crash upon receipt of IPv6 frame	8116
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
	Use parallel ping when multiple <code>icmp_hosts</code> defined	7312
DHCP Client	Fix DHCP client intermittently not installing the default route on a when ports are bridged	8823
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
Ethernet	Fix manual <code>ifup</code> on non auto Ethernet and SFP interfaces	8507
Event System	Fix <code>ConfigChanged</code> event not being generated when using configuration audit	7132
Failsafe	Fix auth error messages in syslog when console disabled using failsafe feature	8401
Firewall	Optimise local IP checking using cache	8307
	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
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
	Sort command points and data points from lowest to highest in <code>iec show stats</code>	8701
IECD/ IEC104S	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	Fix an issue in SCL parser - converting DPS point types	8535
	Added default config values for IEC61850 master settings	8351
	Fix errors in mapping of IEC61850 DPS to IEC104 double point	8483
	Fix IEC61850M Read Instant Value option operation. <code>iec61850m readinst</code> option moved from <code>61850m</code> config section to global config section so it is applied to all points during SCL import	8574
	Fix incorrect handling of IEC61850 DPC data type by the IEC61850 client	8493
	Fix incorrect reading of APC value	8497
	Fix issue in handling Point Invalid bit when multiple IEC61850M sessions are connecting	8353
	Fix issues in IEC61850M SCL file parser when dealing with multiple Logical Nodes	8482
	Fixed reading IEC61850 analog inputs (instantaneous vs averaged values)	8293
	Fixed TCP connection drop on IEC104 clock sync processing	8211
	Incomplete Parsing of Data and Command Points for 30 61850M Links	8570
	Set <code>iec104_sbo</code> parameter based on the parsed value of <code>ctrlmodel</code> of IEC61850M SCL file	8467
IECD/ Modbus	Fix incorrect reporting of point online (quality status)	8619
IECD/DNP3	Fix display of DNP3S uplink time in <code>iec show stats</code>	8417
	Fix DNP3S event queue handling so the event queue persists across the uplink up and down events	8931
	Fix error in displaying DNP3 app status	8348
	Fix incorrect reporting of DNP3S link status	8620
	Fix support for DNP3 Group 3 data point (double bit binary input)	8597
	Fixed incorrect conversion of DNP3 G42 variation 6 events to IEC104 TI 36	8527
	Fixed incorrect link assignment when sending dual point cmd IEC104S to DNP3M	8390
	Fixed issue with DNP3 analog input scaler for IEC104 TIs 9,11	8347
	Fixed 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	Fix issues with IEC104 command point pass through dependencies	8617

	Improvements for IEC104 Server transmission queue for optimal upload performance.	8625
IECD/IEC61850	Fix IEC61850M SCL parser issue related to RCBs and datasets	8716
	Fixed incorrect processing of INS variable during dataset poll	8794
	Fix IEC61850M reports trigger options handling	8872
IECD/Modbus	Added display of point value for MQTTS to Modbus point display in <code>iecd show points</code> command	8691
	Allow value of 0 for Modbus register address	8615
	Fix incorrect conversion from Modbus DI or CO to IEC104 Slave DPI (Type ID 3)	8380
	Fix 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
	Added default setting of MQTT port for VHMI	8531
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 incorrect reporting of point value by VHMI over MQTT	8946
	Fixed issues with converting MQTT to IEC104 Master TypeIDs 9, 13, 48 and 50	8176
	Send point updates to dedicated topics if configured web: <code>system->iecd->server protocol->configure mqtt->topic->Append Name to Monitor Topic</code> cli: <code>iecd.port.mqtt_add_ptname_to_mon_topic</code>	8971
L2TP	Fix privileges which left PPP in a bad state	8071
LLDP	Fix LLDP description delivery to peer	8627
	Fix LLDP neighbour establishment	8595
Management Users	Fix management user <code>allowed_pages</code> handling	8225
Mobile	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
	Ensure correct LTE bands are selected when switching SIMs	8893
	Ensure Quectel initialisation doesn't require unnecessary module reboots	8859
	Fix crash for Quectel modules when SIM2 in during boot and SIM1 inserted after boot	8529
	Fix crash when band detection on Sierra Wireless WP76xx failed	8334
	Fix ICCID collection when SIM1 empty and SIM2 inserted to allow mobile interface to start correctly	8934
	Fix intermittent SIM detection issue on slot 2 on GW1400 series using Quectel EM060KA module	8236 8278

	Fix intermittent Unitac module connection after FOTA upgrade from module firmware from V13 to V14	8814
	Fix RM520 mobile module connectivity using RM520NGLAAR01A08M4G_01.200.01.200 firmware	8698
	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
	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
Monitor	Fix Monitor SSH access for SLA uploads	8175
Multiwan	Check if route exists before modifying to avoid modifying a route for an incorrect interface. Fix issue where multiwan is modifying/removing routes for interfaces that are	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 Connect Watch <code>Interface restart</code> failure action	8754
	Fix multiwan crash due to module separation	8435
	Fix multiwan pre-empt functionality (broken in 25.04.35.000)	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
	Multiwan/Syslog	Log multiwan shell commands at debug level
Network	Remove IP address display if interface is down using <code>network_status</code> command	6763
OpenVPN	Fix multiple OpenVPN tunnel establishment without the need for process restart	8478
	Fix Openvpn tunnel interface failing to get IP address with TPM stored keys	8822
	Fix support for multiple tunnels	8316
PPP	Allow PPP interface to be up without IP address	8229
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 enrolment failure using TPM-backed key	8441
	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 <code>VA-TRAPS-G02</code> MIB file	8829
Strongswan	Fix conntrack flushing for strongswan on tunnel change	8249

	Fix <code>ipsec statusall</code> crash when multiple peers connect to a single connection with <code>remoteaddress</code> configured as <code>%any</code> and an unspecified <code>remotelan</code>	8785
	Fix strongswan file permissions for IPsec XAUTH with PAM	8802
Syslog	Fix <code>misc nmea</code> kernel error messages in syslog	8533
System	Ensure <code>/etc/passwd</code> is updated when option <code>linuxuser</code> is set to <code>no</code>	8171
	Ensure <code>/etc/rollback</code> directory is automatically created and fix rollback from active update to altconfig target	8621
	Factory reset from web UI when force password present in factory config forces user to reset password on next log on.	8974
	Fix configuration error message due to obsoleted <code>openvpn_recipes</code> package	8811
	Fix incorrect config file errors when running configuration sanity check <code>sanity_check.sh</code>	8732
	Improve firmware validation to cover both kernel and main image before flashing to altimage	2882
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
	Fix formatting error messages in web UI	8255
	Fix menu items when they don't fit the menu width	8546
	Fix web UI becoming unresponsive when HTTPS status page left open in browser	8695
	Remove welcome message from landing page	8072
Web/Administration	Improvements to reboot scheduling	8082
	Remove <code>Upload private keys to TPM</code> button since now handled via Certificate Management page	8125
	Upload TPM key button is now removed for non-TPM boards	8086
Web/AT Command Service	Enhancements to AT Command Service web configuration and refresh of AT service status to refresh every 5 seconds	8238
Web/Certificates	Fix typo on HTTPS Certificate label	8891
Web/Connection Watch	Fix incorrect Connection Watch status display on web UI when there are underlying configuration issues	8569
	Ensure ICMP jitter options are only present on web UI when method <code>icmp</code> is selected	6973
	Fix <code>cwatch</code> status showing as disabled when enabled	8837
Web/Firewall	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	

Web/HTTP Server	Remove configuration options that are not required from web UI, fix default values and split configuration into tabs	8397
Web/Interface	Fix issue when creating an interface with a device already assigned to another interface	4072
	Fix <code>RECONNECT</code> button press stalling the web UI until the interface has finished connecting	8982
	Fix unable to select SIM1 or SIM2 from mobile interface SIM configuration option	8007
Web/IPSec	Elliptic curve Diffie-Hellman algorithms can now be configured via the web UI when using IKEv2	7730
	Fix crash when accessing Authentication tab on web UI	8582
	Fix error on web UI when creating a new IPSec connection	9035
	Fix IPSec status display for multiple child tunnels	8444
	Fix IPSec status page display after disabling IPSec	8844
	Fix misleading preshared key ID selector label	8349
	Fix to ensure connection tab labels contain correct tunnel names	8729
	Fix Web UI incorrectly saving default values for IPSec Connection Additional Local and Remote Auth options	8801
	IPsec status now displays multiple subnets for IKEv2	8352
	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/Mobile	Fix 3G roaming manager custom sort script option when Roaming Sort Order is <code>none</code>
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
Web/Multiwan	Fix multiwan configuration using web UI when <code>main</code> configuration section is missing in config	8569
	Multiwan now stops correctly when disabled via the web UI	8085
Web/Power Monitor	Fix web UI default value for power monitor enabled field	8633
Web/Rollback	Fix rollback configuration through web UI when no options exist in configuration	8621
Web/Scada	Add debug options for IEC61850 to web UI	8215
	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

	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 missing Echo enable configuration option for CRSD	8954
	Added missing IECD options to web UI	8764
	Added quality column and data point quality reporting to IECD status in web UI	8406
	Change <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
	Description changed to reflect the fact that IEC61850 SCL file import only works with SCADA side protocol set to IEC104	8353
	Fix configuration of IEC104 Auth Exp Key Wrap Algo option	8718
	Fix data polling delays for IEC61850M to IEC104S protocol conversion when using multiple RTUs with large number of data points	8672
	Fix display of Integrated Totals IEC104 type ID	8656
	Fix IEC104 Master Link 2 tab option visible when only Link 1 is enabled	8765
	Fix IEC104 W option description in IEC104_LINK for IEC101RTR. Was previously incorrectly labelled IEC104 K	8436
	Fix incorrect display of value for IEC104S to Modbus TI 9, 3 and HR, DI	8385
	Fix issue in converting 104 setpoint float to Modbus 64 bit commands	8655
	Fixed data points in IECD status page for MQTT	8688
	Fixed IECD application restarting correctly when Save & Apply button used and IEC61850 connection is active.	8214
	Fixed incorrect processing of Modbus bitmap point type for DNP3S case	8675
	Fixed Modbus point quality not updating in web status	8662
	Fixed point event queue overflow for IEC61850M to IEC104S protocol conversion for data points greater than 127	8560
	IECD Slave changed to IECD Server	8894
	Implemented missing command conversion from IEC104 Setpoint Float to Modbus	8614
	Moved IEC104 health point configuration from Multi-master mode tab to new Health tab	8686
	Remove popup warning prompts users to save configuration on subpage	8587
	Update description for IEC61850M Read Instant Value	8821
	Update descriptions for MQTT server options	8680
	Updated IEC104M point field descriptions	8480
Web/SCEP	Add information on SCEP enrolment progress to status page	8464
	Fix error on UI after certificate deletion	8997
	Fix SCEP client status showing correctly	8835
	Fix SCEP status display in the web UI	8835
	SCEP request now initiated after <code>Save & Apply</code> via the web UI	8377

Web/SSH	Fix host key algorithm description to note that only RSA algorithms are advertised by the SSH server when no algorithm is selected	7312
Web/Status	Added mobile overview and routing table to web UI status overview page	6965
	Ensure AT Command Service status is not present when disabled	8862
	Ensure Connection Watch status is not present when disabled	6966
	Ensure Data Usage status is not present when disabled	6966
	Ensure GNSS status is not present when disabled	8858
	Suppress link local IPv6 addresses in routing table overview	6965
Web/UDS	Added missing 'none' value for script type to allow loading a pure text file	8989
	Do not remove blank lines from scripts	8990
	Support UDS gzip encoding configuration via web UI	8368
Web/VRRP	Fix 'Track Interface' configuration as <code>list</code> type for proper operation	8637
Web/Weconnect	Enforce entering required Weconnect parameters	8634
Web/xDSL	Support new options to set operator profile for VDSL waveform tuning and adjust target noise to trade speed for reliability	8612
WiFi	Default hwmode changed from 802.11g to 802.11ng	3084
	Fix intermittent crash on WiFi restart using web UI on GW3300D series	8831
	Fix support for WPA2 with EAP-TLS1.3	8151

10 Appendix 1: New features history

10.1 Release 25.04.38.004

No new features

10.2 Release 25.04.38.003

No new features

10.3 Release 25.04.38.001

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			8090
	Package	Section	Options	
	monitor	keepalive	snmp_auth_pass; snmp_priv_pass	

10.4Release 25.04.36.000

Ethernet						
RSTP support	Added support for Rapid Spanning Tree Protocol				6508	
Event System						
VA Event System now supports firewall discard event						
Event System firewall discard	<u>Class</u>	<u>Id</u>	<u>Name</u>	<u>Severity</u>	<u>Event Template</u>	7769
	Firewal l	2	DiscardZon e	warning	Rule % {p1} triggered: % {p6} from % {p4}:% {p7}(% {p2}) to % {p5}:% {p8}(% {p3})	
Firewall						
Firewall discard event forwarding	New option to support raising an event for rejected/dropped traffic in a firewall zone for onward forwarding to an event system target (snmp, syslog, etc)				7769	
	The packet/event rate will be limited to 10/min by default. Use the <code>log_limit</code> option to change the default packet rate limit if required.					
	<u>Package</u>	<u>Section</u>	<u>Options</u>			
	firewall	zone	discard_event			
Interface						
Interface Status	Include physical ports with eth-X interfaces in interface status				7900	
	Support wildcards on interface names to show all matches. cli: <code>ifstatus eth0</code> (matches only eth0) cli: <code>ifstatus eth*</code> (matches all eth interfaces)				7440	
Mobile						
PRI display	Added PRI to mobile stats for Sierra Wireless modules cli: <code>vam -a</code>				7440	
SIM7070E diagnostic port	Added support for SIMCOM7070E diagnostic port				7979	
Multiwan						
Suppress static routes	New option to suppress all static routes for an interface when it transitions to failed state				7809	
	<u>Package</u>	<u>Section</u>	<u>Options</u>			
	multiwan	interface	suppress_all_routes_on_fail			
PPP						
BCP support	Added support for Bridge Control Protocol for bridging Ethernet packets through a PPP link. Supported for PPP and L2TP protocols.				7935	
	<u>Package</u>	<u>Section</u>	<u>Options</u>			
	network	interface	bcp; maclocal			
Scada						

Modbus TCP	Added TCP port number to route config			7977
	Package	Section	Options	
	iecd	port	modbus_tcp_server_port	
Optional DNP3 G40 status	Support optional reporting of DNP3 G40 analog output during integrity poll			7999
	Package	Section	Options	
	iecd	port	dnp3s_g40_exclude_intpoll	
SNMP				
EID OID	SIM EID now supported in VA-MODEM-MIB			8029
Strongswan				
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	
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			4677
	cli: debug mobile on cli: debug ipsec on cli: debug multiwan on			

10.5Release 25.04.16.000

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 route translate	see user manual

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
	<u>Package</u>	<u>Section</u>	<u>Options</u>	
	management_user	user_group	groups_enabled; allowed_pages	
Mobile				
5G band selection	Support space separated 5G band selection.			
	<u>Package</u>	<u>Section</u>	<u>Options</u>	
	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
	<u>Package</u>	<u>Section</u>	<u>Options</u>	
	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
	<u>Package</u>	<u>Section</u>	<u>Options</u>	
	mobile	mobile	sms_read_interval; sms_check_time; sms_past_margin; sms_future_margin	
SMS whitelisting	Support whitelisting commands allowed to be executable by SMS			6931
	<u>Package</u>	<u>Section</u>	<u>Options</u>	
	mobile	caller	allowed_commands	
Watchdog timeout behaviour	Support advanced configurable action [<code>log</code> <code>reset</code> <code>reboot</code>] to take when a watchdog timeout occurs for a mobile module. Currently only supported for QMI modules			5719
	<u>Package</u>	<u>Section</u>	<u>Options</u>	
	mobile	main	netdev_wd_action	
OpenVPN				
TPM support	Support OpenVPN keys in TPM. The existing key option should be configured to the TPM label for the OpenVPN key			7126
	<u>Package</u>	<u>Section</u>	<u>Options</u>	
	openvpn	openvpn	keytype; key '<TPM-label>'	
Password Management				
Multi Factor Authentication	SSH and web UI now support Multi Factor Authentication using Google authenticator			5339
	<u>Package</u>	<u>Section</u>	<u>Options</u>	7152
	dropbear	dropbear	multi_factor_auth	7154
	luci	main	multi_factor_auth	
Password lifetime	Support password lifetime configuration for management users. Does not apply to root password			7156
	<u>Package</u>	<u>Section</u>	<u>Options</u>	
	management_user	user	max_passwd_age	

Password regex	Support configuring password regex rules. Applies to root password and management users password	7194						
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>system</td> <td>main</td> <td>password_regex</td> </tr> </tbody> </table>	Package	Section	Options	system	main	password_regex	
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						
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>network</td> <td>interface</td> <td>adaptive_keepalive</td> </tr> </tbody> </table>	Package	Section	Options	network	interface	adaptive_keepalive	
Package	Section	Options						
network	interface	adaptive_keepalive						
RADIUS								
NAS-Identifier option	Support new configuration option for NAS-Identifier with support for <code>%serial</code> and <code>%hostname</code> option values	7347						
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>system</td> <td>pam_auth</td> <td>radius_nasid</td> </tr> </tbody> </table>	Package	Section	Options	system	pam_auth	radius_nasid	
Package	Section	Options						
system	pam_auth	radius_nasid						
Scada								
AI Scaler	<p>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.</p> <p>AI scaler now supports both divisor and multiplier</p>	7278 7506						
	<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>ai_scaler_op</td> </tr> </tbody> </table>	Package	Section	Options	iecd	port	ai_scaler_op	
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						
	<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_variation</td> </tr> </tbody> </table>	Package	Section	Options	iecd	port	dnp3s_g40_variation	
Package	Section	Options						
iecd	port	dnp3s_g40_variation						
DNP3 relay type	Support new configuration option for specifying command point relay type	7512						
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>iecd</td> <td>cmdpoint</td> <td>dnp3_relay_type</td> </tr> </tbody> </table>	Package	Section	Options	iecd	cmdpoint	dnp3_relay_type	
Package	Section	Options						
iecd	cmdpoint	dnp3_relay_type						
IEC101RTR TCP Server Mode	Support TCP Server Mode for IEC101RTR IEC101 connection	6992						
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>iecd</td> <td>link101</td> <td>listen_ip, listen_port</td> </tr> </tbody> </table>	Package	Section	Options	iecd	link101	listen_ip, listen_port	
Package	Section	Options						
iecd	link101	listen_ip, listen_port						
IEC104 command point IOA	New configuration option for IEC104 master command point information object address	7579						
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>iecd</td> <td>cmdpoint</td> <td>iecd104m_cmd_ioa</td> </tr> </tbody> </table>	Package	Section	Options	iecd	cmdpoint	iecd104m_cmd_ioa	
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 <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>'	
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
Terminal Server				
Show configuration CLI command	Added support for display of running terminal server configuration CLI command <code>cli: show config</code>			6893
VA Events				
802.1x events	VA Event System now supports <code>ieee8021x</code> event class and events			
	Id	Name	Severity	Event Template
	1	IEEE8021xRestrictingIf	notice	IEEE8021x restricting on % <code>{p1}</code>
	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. web: services->mobile manager->lte	
Session control	Added utility to list and terminate web sessions (Mantis: 7159) 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	

10.6 Release 25.03.43.021

System		
Firmware	Prohibit downgrading router firmware on models using Sierra Wireless Toshiba NAND flash to an unsupported version (< 25.03.43.014)	7488

10.7 Release 25.03.43.019

System		
Firmware	Added support for new Sierra Wireless NAND flash (Toshiba TC58NYG2S0H). Note: Routers running this Sierra Wireless flash version require v2.6 bootloader and cannot be rolled back to firmware prior to 25.03.14.014.	

10.8 Release 25.03.43.010

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</p> <ul style="list-style-type: none"> When configured for PEM key and key cannot be found at the configured location, the router will try to use a TPM key with name corresponding to base file name (/etc/uhttpd.key -> "uhttpd"). When configured for TPM key and key cannot be found in the TPM, the router will try to use file "/etc/<tpm label>.key" 	6820
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>							
Sierra Wireless WP7702 LTE-M support	Added support for Sierra Wireless WP7702 LTE-M1/NB1 mobile module on Merlin series							
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	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>)						
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 <code>web: status->PoE</code>	6827						
Scada								
DNP3 Analog Set point command variation	Added new option for DNP3 Analog Set point command variation							
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>iecd</td> <td>cmdpoint</td> <td><code>dnp3_cmd_variation</code></td> </tr> </tbody> </table>	Package	Section	Options	iecd	cmdpoint	<code>dnp3_cmd_variation</code>	
Package	Section	Options						
iecd	cmdpoint	<code>dnp3_cmd_variation</code>						
MODBUS to Remote IO protocol conversion	Added support for MODBUS to Remote IO (ioservd) protocol conversion	6886						
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							
	<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><code>dnp3_tx_spont_on_static_change</code></td> </tr> </tbody> </table>	Package	Section	Options	iecd	port	<code>dnp3_tx_spont_on_static_change</code>	
Package	Section	Options						
iecd	port	<code>dnp3_tx_spont_on_static_change</code>						
TPM								
List TPM keys	Support new diagnostic command to list TPM keys <code>cli: tpm-cli listkeys</code>	5339 7152 7154						

10.9Release 25.03.43.000

Network								
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	6739						
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>network</td> <td>interface</td> <td><code>ignore_carrier_state</code></td> </tr> </tbody> </table>	Package	Section	Options	network	interface	<code>ignore_carrier_state</code>	
Package	Section	Options						
network	interface	<code>ignore_carrier_state</code>						

System			
IP PAD support	Added <code>padd</code> and <code>vald</code> packages for IP PAD support for converting legacy X.25 serial communication over TCP/IP.		
Scada			
IECD VRF support	VRF support for IECD TCP based protocols		
	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;
			6784

10.10 Release 25.03.37.000

Network			
GPS MIB support	Added support for VA-GNSS-MIB for retrieval of GPS values		
			6739
System			
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.		

10.11 Release 25.03.35.000

BGP			
BGP MIB support	Added BGP4-MIB support so BGP information can be retrieved via SNMP		
			6347
FXS			
Analogue gain	Added options to store FXS card gain		
	Package	Section	Options
	fxs	interface	rx_analogue_gain; tx_analogue_gain
GPS			
GPS diagnostics	Added new <code>gps</code> diagnostics command		
Mobile			
EID retrieval	Support EID retrieval for Quectel, Simcom, Sierra Wireless, Huawei and Telit mobile modules. EID information on the SIMs can be displayed using <code>vam -a</code> command		
			6236
FOTA	FOTA upgrade can now use CURL to download a firmware image from remote location		
	Support Quectel FOTA upgrade via locally stored file		

Quectel RM520N-GL 5G mobile support	Added support for Quectel RM520N-GL 5G mobile module	
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Monitor

LTE band and cell diagnostics	Added support for LTE band and cell information in ISAD	6007						
VRF support for monitor keepalive	Added support for configuration of VRF domain for Monitor keepalive traps	5983						
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>monitor</td> <td>keepalive</td> <td>vrf</td> </tr> </tbody> </table>	Package	Section	Options	monitor	keepalive	vrf	
Package	Section	Options						
monitor	keepalive	vrf						

Multiwan

Multiwan interface scanning timeout	New multiwan config parameter to extend <code>ifup</code> timeout when a mobile roaming operator scan is active. Used in conjunction with VA Roaming Manager feature, this parameter is added to the normal <code>ifup_timeout_sec</code> used for <code>ifup</code> operations whenever the <code>ifup</code> occurs during a 3G operator background scan, or the <code>ifup</code> itself triggers such a scan, on the modem being used for the current interface.							
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>multiwan</td> <td>interface</td> <td><code>ifup_scanning_timeout_sec</code></td> </tr> </tbody> </table>	Package	Section	Options	multiwan	interface	<code>ifup_scanning_timeout_sec</code>	
Package	Section	Options						
multiwan	interface	<code>ifup_scanning_timeout_sec</code>						

Roaming Manager

Roaming Manager connection retry options	Added new connection retry options for Roaming Manager feature										
	<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><code>roaming_link_success_time;</code> <code>roaming_prefer_best_operator;</code> <code>roaming_scan_inheritance</code></td> </tr> <tr> <td>multiwan</td> <td>interface</td> <td><code>retry_on_first_fail</code></td> </tr> </tbody> </table>	Package	Section	Options	network	interface	<code>roaming_link_success_time;</code> <code>roaming_prefer_best_operator;</code> <code>roaming_scan_inheritance</code>	multiwan	interface	<code>retry_on_first_fail</code>	
Package	Section	Options									
network	interface	<code>roaming_link_success_time;</code> <code>roaming_prefer_best_operator;</code> <code>roaming_scan_inheritance</code>									
multiwan	interface	<code>retry_on_first_fail</code>									

Scada

DNP3 to IEC104 DI inversion and AI Scaling	Added support for inversion of single bit binary input points (Gr1, Gr2) for DNP3 RTU's to IEC104 Scada master. In addition, added support for a new an option for analog scaling – the analog inputs received from the RTU are divided by the scaler before conversion to SCADA protocol	6419						
	<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><code>di_invert;</code> <code>ai_scaler</code></td> </tr> </tbody> </table>	Package	Section	Options	iecd	port	<code>di_invert;</code> <code>ai_scaler</code>	
Package	Section	Options						
iecd	port	<code>di_invert;</code> <code>ai_scaler</code>						
Health points in multi master mode	Added support for health points (6) in multi-master mode							
	<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><code>iec104_rtuX_health_ioa;</code></td> </tr> </tbody> </table>	Package	Section	Options	iecd	port	<code>iec104_rtuX_health_ioa;</code>	
Package	Section	Options						
iecd	port	<code>iec104_rtuX_health_ioa;</code>						

HMI second interface	Added support for HMI Second Control Interface (MQTT)			
	Package	Section	Options	
	iecd	port	modbus_slave_devaddr; modbus_slave_protocol; modbus_slave_local_ip; modbus_slave_tcp_port (def: 502); modbus_slave_serial_ifnum; modbus_slave_use_tls; modbus_slave_tls_cacertfile; modbus_slave_tls_crlfile; modbus_slave_tls_certfile; modbus_slave_tls_keyfile; modbus_slave_tls_pass; modbus_slave_tls_common_name; modbus_slave_tls_validate_peer_cert; modbus_slave_tls_verify_depth; modbus_slave_tls_force_tls1_2; modbus_slave_tls_cipherlist	
IECD diagnostics	Added new command line diagnostics to show all possible point and cmdpoint options			6556
	cli: iecd show point options cli: iecd show cmdpoint options			
IECD104 Slave cyclic transmission	Support for cyclic transmission of data point messages			
	Package	Section	Options	
	iecd	port	iecd104_cyclic_on	
IECD61850 Slave to MODBUS Server	Added support for IEC61850 slave to MODBUS Server			
IEC62351-3 TLS - CRL/OCSP Automated Fetching	Added support for CRL/OCSP automatically fetching from a link provided within the certificate. Previously implementation only used a local file			5955
IOSRVD direct serial comms	Support IOSRVD interface to serial using direct driver calls instead of UNIX sockets to tserverd			
	Package	Section	Options	6322
	iecd	port	modbus_serialX_mode; modbus_serialX_speed; modbus_serialX_wsize; modbus_serialX_parity; modbus_serialX_stops (where X is 0 or 1)	
IOSRVD MQTT	Added support for remote IO and MQTT slave			6315
MODBUS TCP routes	Added support for MODBUS TCP routes			
	Package	Section	Options	6643
	iecd	mbtcp_route	ifnum; devaddr, ipaddr	

MODBUS master side analog filtering	When IECD is configured to communicate with a modbus slave, it can receive updates of register values that are modelling analog inputs (Holding Registers and/or Input Registers). Since analog values can be 'noisy' in nature, these updates can be quite frequent. If it is desired to limit the frequency of these updates, it is now possible to apply per data point filtering of analog values.			
	Package	Section	Options	
	iecd	point	modbus_filter_mode; modbus_filter_db_val; modbus_filter_sampling_time_secs; modbus_filter_transmit_time_secs	
MODBUS slave to Modbus master TCP data conversion	Support Modbus slave to Modbus master TCP conversion			
	Package	Section	Options	
	iecd	port	modbus_slave_devaddr; modbus_slave_protocol; modbus_slave_local_ip; modbus_slave_tcp_port (def: 502); modbus_slave_serial_ifnum; modbus_slave_use_tls; modbus_slave_tls_cacertfile; modbus_slave_tls_crlfile; modbus_slave_tls_certfile; modbus_slave_tls_keyfile; modbus_slave_tls_pass; modbus_slave_tls_common_name; modbus_slave_tls_validate_peer_cert; modbus_slave_tls_verify_depth; modbus_slave_tls_force_tls1_2; modbus_slave_tls_cipherlist	6047
MQTT offline queue	Added support for MQTT offline message queue for storing public messages in memory while MQTT broker is offline.			
	Package	Section	Options	
	iecd	port	mqtt_offline_q_on	
MQTT payload logging	Added payload logging for MQTT publish			
	Package	Section	Options	
	iecd	port	mqtt_debug_on	6317
MQTT Slave to Modbus conversion	Added support for MQTT slave to Modbus protocol conversion			6319
RTU test emulator	Added support for VRTU (RTU Test Emulator) for pre-production SCADA connectivity and operations testing			
	Package	Section	Options	
	iecd	port	vrtu_simulation_interval_sec	6225
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			
	Package	Section	Options	
	tservd	port	udpMultiPointOn; remote_ipX; udpRemotePortX	6723
Transparent mode offline queue	Added support for IEC104 slave offline queue when using transparent mode (no iec104s application layer)			

TPM key storage support	Added TPM support for TLS based protocols in IEC62351-9) Server (IEC62351-9)			6552
	Package	Section	Options	
	iecd	port	iecd104_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	
	tserverd	port	tcp_tls_keytype	
VRF	Support for binding IEC104 Slave socket to a VRF for isolation from general routing			4802
	Package	Section	Options	
	iecd	port	iecd104_ip1_vrf; iec104_ip2_vrf; iec104_ip3_vrf; iec104_ip4_vrf; iec104_ip5_vrf; iec104_ip6_vrf;	
Windows file format data point import	Support windows .xlsx extension for data point files import			6027
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	
SNMP				
LAPB MIB support	Added support for VA-LAPB-STATS-MIB which provides level 2 statistics for the serial interface			4695
Modem firmware version MIB support	VA-MODEM-MIB modemTable now supports modemFirmwareVersion and modemGsmLtePci			5912
VA roaming manager MIB support	Added MIB support for VA Roaming Manager (vaRoamingManagerModule) feature to VA-MODEM-MIB			5842
System				
GNSS time synchronisation	Added support for time update via GNSS. Note: Router requires GNSS capabilities and GNSS is enabled			6229
	Package	Section	Options	
	system	timeserver	gnss_clock_source_enabled	
Sierra Wireless NAND	Added support for newer Sierra Wireless NAND flash. Note: Routers running newer Sierra Wireless flash cannot be rolled back prior to 25.02.80.000			

10.12 Release 25.02.14.032

10.13 Release 25.02.14.027

No new features

10.14 Release 25.02.14.024

Mobile

EID retrieval using SIMCOM 7070E	The SIMCOM 7070E mobile module can now report EID information on the SIMs using vam -a command	6236
----------------------------------	--	------

10.15 Release 25.02.14.016

General

GW2124P support	Support for new hardware GW2124P (Sierra Wireless single radio router with dual 10/100Mbps Ethernet)
-----------------	--

10.16 Release 25.02.14.010

No new features

10.17 Release 25.02.14.009

CP24 timestamp format messages	IEC101 Type ID 2, 4, 6, 8, 10,12,14,16 now supports CP24Time2a for IEC101 to 104 conversion	5980	
IEC104 Double Bit command conversion	IECD now supports double bit command conversion to two single DNP3 commands when option dnp3option is set to 0x0001		
	Package	Section	Options
	iecd	point	index2; dnp3options
	cmdpoint	Index2; dnp3options	6052

SCEP certificate user option	Added new config option user, which is the high-level concept of the user of the certificate. This user gets read access via its group. The owner is root, the group is the user. The user is expected to be a member of its group.			5908
	Package	Section	Options	5913
	strongswan	scep_cert	user (def: strongswan)	

10.18 Release 25.02.14.000

BGP				
eBGP multihop and source peer configuration	Support for allowing multihop ebgp neighbourhood for the peer and specifying source address for communicating with the peer. Option source can be either ip4 address or UCI interface name			5609
	Package	Section	Options	
	bgp	peer	ebgp_multihop; source	
Inbound and outbound route map	Support for BGP inbound and outbound route map configuration. Previously it was only possible to specify either inbound or outbound route map.			
	Package	Section	Options	
	bgp	peer	inbound_route_map; outbound_route_map	
Peer password configuration	Support for BGP peer password configuration			5090
	Package	Section	Options	
	bgp	peer	password	
CWATCH				
Ping Health Check	Cwatch now supports ping as a monitoring method. Previously only supported receive byte count			
	Package	Section	Options	
	cwatch	watch	method; icmp_hosts; icmp_attempts; icmp_timeout; icmp_size; icmp_ttl; icmp_reliability	
Digital Input				
Wet/dry configuration	Support for digital input wet/dry configuration for Merlin4600 and GW2300 series using new gpio package			
	Package	Section	Options	
	va_eventd	target	vrf	
Event System				
VRF	Support for events for syslog and email targets to be isolated from general routing using VRF			
	Package	Section	Options	
	va_eventd	target	vrf	
FXS				

FXS interface	<p>Configuration section <code>config main</code> is now replaced with <code>config interface</code>. This section contained one configuration option <code>low_zero_pulse</code> which has now moved to the new interface configuration section</p>						
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>fxs</td> <td>interface</td> <td>low_zero_pulse</td> </tr> </tbody> </table>	Package	Section	Options	fxs	interface	low_zero_pulse
Package	Section	Options					
fxs	interface	low_zero_pulse					
Receive and Transmit gain	<p>Support receive and transmit parameter configuration</p> <table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>fxs</td> <td>interface</td> <td>rx_gain; tx_gain;</td> </tr> </tbody> </table>	Package	Section	Options	fxs	interface	rx_gain; tx_gain;
Package	Section	Options					
fxs	interface	rx_gain; tx_gain;					
GRE							
GRE Keepalive	<p>Support for automatic responding to received GRE keepalive messages. Added multiwan support for GRE keepalive tests which sends a single GRE keepalive message and waits for either reply or timeout. Only relevant for GRE interfaces.</p> <table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>system</td> <td>main</td> <td>audit_interface; audit_interface_log_file; audit_interface_log_size; audit_interface_log_count</td> </tr> </tbody> </table>	Package	Section	Options	system	main	audit_interface; audit_interface_log_file; audit_interface_log_size; audit_interface_log_count
Package	Section	Options					
system	main	audit_interface; audit_interface_log_file; audit_interface_log_size; audit_interface_log_count					
Interface							
Interface status logging	<p>New feature for historical interface status logging for each configured interface for defined periods - day/week/month. Log can then be used to determine the reliability of an interface over time. Feature is enabled by setting <code>system.main.audit_interface</code>. When enabled, interface up/down events are logged to <code>root/interfacelog[*]</code>. Log can be displayed via the web UI at <code>status->interface log</code>, or using the command <code>iflog (up down)</code>.</p> <table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>system</td> <td>main</td> <td>audit_interface; audit_interface_log_file; audit_interface_log_size; audit_interface_log_count</td> </tr> </tbody> </table>	Package	Section	Options	system	main	audit_interface; audit_interface_log_file; audit_interface_log_size; audit_interface_log_count
Package	Section	Options					
system	main	audit_interface; audit_interface_log_file; audit_interface_log_size; audit_interface_log_count					
Mobile							
Multi-APN	Added support for Multi-APN using Sierra Wireless WP76XX modules						

Roaming SIM enhancements	<p>New feature to identify all available roaming operators visible on the SIM card assigned to a 3G interface, and dynamically select the most appropriate one whenever the 3G interface attempts to connect, rather than sticking with a single operator.</p> <p>Unlike the existing roaming support (configured via <code>/etc/config/mobile</code> roaming section) which creates a dynamic UCI interface for each discovered mobile operator, this new support will use a single UCI interface and will dynamically decide which physical operator to connect to at any time. This decision may be based on criteria such as signal strength, ping response time, and other metrics.</p>										
	<table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>network</td> <td>interface</td> <td>roaming_enabled; roaming_operator_exclude; roaming_ordering; roaming_ordering_function; roaming_ping_count; roaming_ping_hosts; roaming_ping_interval_ms; roaming_ping_timeout_ms; roaming_ping_size; roaming_full_scan_timer; roaming_allow_scan_inheritance; roaming_full_scan_window_start; roaming_full_scan_window_end</td> </tr> </tbody> </table>	Package	Section	Options	network	interface	roaming_enabled; roaming_operator_exclude; roaming_ordering; roaming_ordering_function; roaming_ping_count; roaming_ping_hosts; roaming_ping_interval_ms; roaming_ping_timeout_ms; roaming_ping_size; roaming_full_scan_timer; roaming_allow_scan_inheritance; roaming_full_scan_window_start; roaming_full_scan_window_end				
Package	Section	Options									
network	interface	roaming_enabled; roaming_operator_exclude; roaming_ordering; roaming_ordering_function; roaming_ping_count; roaming_ping_hosts; roaming_ping_interval_ms; roaming_ping_timeout_ms; roaming_ping_size; roaming_full_scan_timer; roaming_allow_scan_inheritance; roaming_full_scan_window_start; roaming_full_scan_window_end									
<h3>Power over Ethernet</h3>											
Port restart	<p>New option to restart an individual port using <code>/etc/init.d/vapoe restart [A B C D]</code></p>										
<h3>Routing</h3>											
FRR Protocol suite	<p>Quagga routing software suite is now replaced by FRR routing software suite for ORK and SXL families.</p>										
Bidirectional Forwarding Detection (BFD)	<p>Added support for BFD protocol for fast detection of link failures - ORK and SXL families only</p> <table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td rowspan="3">bfd</td> <td>routing</td> <td>enabled; vty_enabled</td> </tr> <tr> <td>peer</td> <td>address; multihop; detect_multiplier; receive_interval_ms; transmit_interval_ms; echo_interval_ms; echo_mode; passive_mode; min_ttl</td> </tr> <tr> <td>route</td> <td>bfd_gw_peer; target; netmask</td> </tr> </tbody> </table>	Package	Section	Options	bfd	routing	enabled; vty_enabled	peer	address; multihop; detect_multiplier; receive_interval_ms; transmit_interval_ms; echo_interval_ms; echo_mode; passive_mode; min_ttl	route	bfd_gw_peer; target; netmask
Package	Section	Options									
bfd	routing	enabled; vty_enabled									
	peer	address; multihop; detect_multiplier; receive_interval_ms; transmit_interval_ms; echo_interval_ms; echo_mode; passive_mode; min_ttl									
	route	bfd_gw_peer; target; netmask									
Routing table display	<p>Enhanced display of routing table via web UI at Status->Active Routes to include Protocol and VRF</p>										
<h3>SCADA</h3>											
Data point and command point import	<p>Support for import of data points and command points from file. This information will replace any UCI configuration. The format of each CSV file will consist of a header that specifies the datapoint options (in double quotes) followed by comma separated values for each of the datapoint options (in double quotes).</p> <table border="1"> <thead> <tr> <th>Package</th> <th>Section</th> <th>Options</th> </tr> </thead> <tbody> <tr> <td>iecd</td> <td>port</td> <td>pointmap_file; cmd_pointmap_file;</td> </tr> </tbody> </table>	Package	Section	Options	iecd	port	pointmap_file; cmd_pointmap_file;				
Package	Section	Options									
iecd	port	pointmap_file; cmd_pointmap_file;									

	Support for DNP3 connection over TLS (IEC62351-3)		
	Package	Section	Options
DNP3 over TLS (IEC62351-3)	iecd	port	dnp3_use_tls; dnp3_tls_cacertfile; dnp3_tls_crlfile; dnp3_tls_certfile; dnp3_tls_keyfile; dnp3_tls_pass; dnp3_tls_common_name; dnp3_tls_validate_peer_cert; dnp3_tls_verify_depth; dnp3_tls_force_tls1_2; dnp3_tls_cipherlist
	Added new event system events for data point changes		
	Id	Name	Sev Event Template
System events for data point changes	1	IecdPointValueChange	Info IOA %{p1} point value changed to %{p2}
	1	Rtud104PointValueChange	Info IOA %{p1} point value changed to %{p2}
	2	RtudDnp3PointValueChange	Info group %{p1} index %{p2} point value changed to %{p3}
	3	RtudModbusPointValueChange	Info regtype %{p1} regaddr %{p2} point value changed to %{p3}
	Support added for HART master protocol conversion. The terminal server (<code>tservd</code>) configuration serial settings are set by IEC101 automatically when master protocol is HART. Note that the correct serial interface must still be enabled in <code>tservd</code> config		
HART master protocol	Package	Section	Options
	iecd	port	hartm_serial_ifnum; hartm_poll_intvl_secs; hartm_reply_timeout_secs; hartm_cmd_max_retries; hartm_debug_on; hartm_dump_data
	Support for automatic time update at specified interval. If the NTP stratum received from chrony matches the configured IEC101 CS Stratum then the time frame sync is sent to the RTU on the specified interval		
IEC101 automatic time update	Package	Section	Options
	iecd	port	iec101_force_time_sync_secs; iec101_inter_char_timeout_ms; iec101_force_time_sync_first_ms;
	New functionality to initiate DNP3 Time Synchronization sequence of commands immediately after reception of IEC104 Clock Synchronization command		
IEC104 to DNP3 write time	Package	Section	Options
	iecd	port	iec104_cs_instant_sync_rtu
	The router will not manipulate any timestamps which are included in any messages received from the local Master. This is reflected within a dedicated RES1 bit. The RES1-bit is used in the monitor direction to indicate whether the time tag was added		
IEC104 time synchronisation RES1 bit	to the information object when it was acquired by the RTU (genuine time) or the time tag was substituted by intermediate equipment such as concentrator stations or by the controlling station itself (substituted time):		
	<ul style="list-style-type: none"> RES1 Value <0> - Genuine time RES1 value <1> - Substituted time 		

IEC104 last gasp virtual point	Added capability to send IEC104 Single Point message with configurable IOA to SCADA master once host device detect power loss		
	Package	Section	Options
	iecd	port	iec104_last_gasp_ioa; iec104_last_gasp_val
IECD web UI redesign	Redesign of IECD web UI to dynamically show chosen master and slave protocol options rather than all possible options at <code>scada->iecd</code>		
IEC61850 master protocol	Support added for IEC61850 master protocol conversion when connected to IEC61850 RTU. Current implementation supports up to 2 concurrent links		
IEC104 slave data point averaging mode	Support for data point averaging mode for IEC104 slave. When the configured sampling period (time or number of samples collected from RTU) is reached the average is sent to the SCADA Master		
	Package	Section	Options
	iecd	point	iec104_param_avg_on; iec104_param_avg_sampling_period_secs; iec104_param_avg_transmit_period_secsiecd.port.i iec104_param_avg_transmit_threshold
WeConnect			
WeConnect Support	WeConnect allows secure remote access to both the network behind the devices and the devices themselves. WeConnect solves the complexity of managing VPNs over the Internet. With WeConnect users can easily and securely connect to any IP-device on the network using their normal PC, smartphone or tablet		
	Package	Section	Options
	weconnect	weconnect	weaddress; weint_name; confver; wetoken; weotp; rip_int

10.19 Release 25.01.40.033

NTP			
Custom chrony configuration	Support for configuration of custom chrony options through web UI		
	Package	Section	Options
	system	timeserver	list text
Local clock drift factor recording	Hidden configuration option <code>system.timeserver.driftfile</code> now defaults to <code>/root/chrony/chrony.drift</code> to record local clock drift factor and reduce synchronisation time on subsequent boots		
SCADA			
Close RTU link when IEC104 master down	New option to stop transmitting on the RTU link when the IEC104 master data link goes down. This will allow the RTU to time out normally and use its own transmission queue to store events		
	Package	Section	Options
	iecd	port	iec104_close_rtu_link_on_master_down

Data point background scan	New option to support IEC104 data point background scan. When enabled, periodic messages with COT=Background Scan shall be sent if the iec104_type_id is compatible with COT background scan, and if the global configuration option iec104_bg_scan_secs is not zero		
	Package	Section	Options
	iecd	point port	iec104_bgscan_on iec104_bg_scan_secs
Delay measurement ACK in DNP3 initialisation	New configuration option to optionally send DNP3 delay measurement ACK in DNP3 initialisation sequence		
	Package	Section	Options
	iecd	port	dnp3_app_send_delay_measure
DNP3 app time selection control	New configuration option to convert received time to UTC offset or pass through unmodified		
	Package	Section	Options
	iecd	port	dnp3_app_cs_use_local_time
DNP3 to IEC104 IEC104 QU field – Pulse command	DNP3 to IEC104 protocol conversion support for IEC104 QU field - Pulse command operations. New options allow for configuration of individual cmdpoint with parameter required for Pulse command operations		
	Package	Section	Options
	iecd	port	dnp3_app_crob_ontime_ms; dnp3_app_crob_offtime_ms; dnp3_app_crob_count
IEC101 Forced Application Mode	Support for configuration of GI and CS parameters for clock synchronisation intervals		
	Package	Section	Options
	iecd	port	iec101_gi_time_secs; iec101_cs_time_secs
IEC104 parameters of measured values	New options to support the handling of IEC104 parameters of measured values		
	Package	Section	Options
	iecd	point	iec104_param_on; iec104_param_thres_on; iec104_param_lolim_on; iec104_param_hilim_on; iec104_param_val_thres; iec104_param_val_lolim; iec104_param_val_hilim
IEC104 virtual point configuration version	Added new configuration options for configuration version and IOA address for IEC104 Virtual Point		
	Package	Section	Options
	iecd	port	iec104_cfgver_ioa; iec104_cfgver_val
Redundancy for up to 6 SCADA Masters	SCADA master redundancy support has been increased from 2 to 6 SCADA Masters		
Support for 2408 data points	Maximum supported data points have now increased from 1200 to 2048.		
Data point change event	Support VA event generation on data point IOA value change so VA event system can send an alarm to configured target		
	Package	Section	Options
	iecd	cmdpoint	log_vaevent_on_change

System

- Syslog entries since boot
- New parameters added to logread to only show log entries since boot.
- `logread -r` – show current log entries since boot
 - `logread -ar` – show log entries since boot and include disk archive files

10.20 Release 25.01.40.028

Mobile

LTE band MIB support	Added LTE band to vaModem.mib	
	MIB	Description
	vaModem.32	LTE band

10.21 Release 25.01.40.019

No new features

10.22 Release 25.01.40.016

No new features

10.23 Release 25.01.40.004

Mobile

Backoff configuration

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

Package	Section	Options
network	interface	failures_to_backoff; backoffminutes

CDMA 450 MIB support

Added CDMA 450 MIB support to vaModem.mib for EC/IO, DRC and PN-Code

MIB	Description
vaModem.29	EC/IO
vaModem.30	DRC
vaModem.31	PN-Code

	New feature for ability to pass custom AT commands to the mobile module at mobile startup and SIM switch. The custom AT commands allow for independent configuration for each SIM		
Custom initialisation string	Package	Section	Options
	mobile	main	sim1_custom_pre_init_at_string; sim2_custom_pre_init_at_string; sim1_custom_pre_init_at_string_timeout; sim2_custom_pre_init_at_string_timeout; sim1_custom_post_init_at_string; sim2_custom_post_init_at_string; sim1_custom_post_init_at_string_timeout; sim2_custom_post_init_at_string_timeout
GPS support	GW1150 series now supports GPS		
OpenVPN			
Configuration import	Support for web import of OpenVPN <code>.ovpn</code> file. This file will override any configured UCI options		
	Package	Section	Options
	openvpn	openvpn	config_file
Web UI redesign	Redesign of web UI OpenVPN manual configuration with support for upload of Pre-shared key; CA certificate; Peer's Public Certificate; Peer's Private Key; Diffie Hellman; TLS Auth Key		
	Package	Section	Options
	openvpn	openvpn	tls_auth; key_direction
SCADA			
IEC104 CS_REWRITE	New functionality to provide checking Chrony NTP sync status and stratum before clock rewrite		
IEC104 timer	Added new options for configuration of IEC104 T1, T2 and T3 timers in seconds		
	Package	Section	Options
	iecd	port	iec104_t1_sec; iec104_t2_sec; iec104_t3_sec

	Integrated all SCADA applications into ORK family. New SCADA web UI tab for grouping together SCADA related features. Feature naming has also been updated to be consistent with firmware packages and Activator.		
SCADA Applications	Web	Package	Description
	DNPOSD	dnposd	DNPOSD is a SCADA application which emulates a DNP3 controlled station and presents status of monitored interfaces and device information as DNP3 objects
	IEC101MON	iec101mon	IEC101MON is a router application that monitors IEC 60870-5-101 link and forwards the decoded messages over MQTT
	IEC101RTR	iec101rtr	IEC101RTR is a SCADA protocol conversion application which acts as IEC101 Slave and converts SCADA traffic to IEC104 Master
	IECD	iecd	IECD is a SCADA protocol conversion application supporting many SCADA protocols: IEC 60870-5-104, IEC 60870-5-101, IEC61850, DNP3, Modbus, MQTT
	IOSRVD	iosrvd	IOSRVD is a router application working with IECD to communicate to Remote IO devices
	Modbus Gateway	modbus_gw	Modbus Gateway SCADA protocol conversion application which acts as Modbus Slave and converts SCADA traffic to IEC104 Master
	RTUD	rtud	RTUD allows the remote SCADA master to monitor and control the digital IOs of the router that acts as the RTU slave. RTUD supports IEC 60870-5-104, DNP3 and Modbus.
Secure Modbus TCP	Support for secure Modbus TCP with introduction of modbus TLS security extension		
Strongswan			
Interoperability improvements	New options added to strongswan configuration for better interoperability with 3rd party vendor peers		
	Package	Section	Options
	strongswan	connection	disable_mobike; mobike_send_additional_self; disable_natt
Terminal Server			
Hardware independent device naming	Added new option for configuration of user-friendly terminal server serial port naming. This allows the terminal server to be configured with the serial port label name in place of the linux <code>devName</code> (which can vary between hardware models).		
	series	devName	serialPortName
	GW1150	/dev/ttyUSB0	port-b
	GW2024P/	/dev/ttySC0	serial0
	GW7314	/dev/ttySC1	serial1
	GW2300	/dev/ttyUSB0	serial0
		/dev/ttyUSB2	serial1
	GW3300D	/dev/ttyOBD0	serial1
	/dev/ttyUSB0	serial2	
		serial-ext	USB
TLS support for TCP mode	Added support for TLS in TCP server and TCP client mode using <code>tserverd</code> .		

Note: New features prior to ORK-25.01.40.004 have been archived

11 Appendix 2: Problems resolved history

11.1 Release 25.04.38.004

Module	Short Description	Mantis
Web/Mobile	Fix error on web UI mobile status page	8392

11.2 Release 25.04.38.003

Module	Short Description	Mantis
Ethernet	Fix Ethernet ports failing to connect when switching from bridge to port separation on GW6650V series	8305
Mobile	Fix bug introduced in 25.04.26.000 which prevented routers with Quectel modules establishing connection depending on certain operator checks	8247
	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
Web/GPS Status	Restore link to google maps	7403
Web/Mobile manager	Fix error on Mobile Manager page when using RFD mobile module - Hucom (WeTelecom) WPD-600N	8358
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

11.3 Release 25.04.38.001

Module	Short Description	Mantis
Firewall	Fix broken protocol values (igmp, eigrp, ax.25, etherip, ipcomp, vrrp, l2tp, isl, sctp, fc) used by firewall option proto	7906
Web	Fix interface colours after firewall zone update	8056
Web/Interface	Fix removal of dependent interfaces from configuration	8074
	Support default route and metric configuration on L2TP interfaces	8073

11.4 Release 25.04.36.000

Module	Short Description	Mantis
Asterisk	Add sample FXS config file	5965
	Added support for PCM capture on outgoing DAHDI channel	7875
	Make <code>ticks_pushed</code> incremental rather than absolute to avoid audio loss after a jump in timestamp	7877
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
	Fix syslog message sending to multiple IP address	8046
FXS	Prevent underrun that causes initial call audio to get dropped	7876
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
	Set minimum firmware software version for Quectel EM060 module to prevent rollback to unsupported firmware	8088
Network	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
PoE	Generate an error periodically for PoE failure	7538
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
Syslog	Fix bad values intermittently generated using firewall recent option	8055
System	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
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
	Ensure lines are visible underneath the login fields	8072
	Fix pixelated background images	8072
	Fix web UI crash when option ifname is missing from an interface	8050
	Removed hshotname and Westermo logo and link from web UI log in page	8072
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
	Update interface pages to show firewall zones as colours	7988
	Allow configuration of an MTU higher than 1500 bytes	7534
Web/Firewall	Add option to WebUi to raise va events on zone dropped/rejected traffic. <code>web:</code> <code>cli: firewall.zone.discard_event</code>	7769
Web/HTTP Server	Fix typo on web UI HTTP Server TPM Key Name	8079
Web/Mobile	Removed choice for selection of the assigned radio module. Radio selection is now done via the SIM slot selection.	7893
Web/PoE	Add warning for PoE failure	7538
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

11.5Release 25.04.16.000

Module	Short Description	Mantis
802.1x	Fix 802.1x authentication	4290
		7464
802.1x	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

Asterisk	Handle timestamp jumps when the remote end switches between tone generation and call media	
Boot	Improve power-on sequencing for USB hub on GW2124P, Merlin series	
Cwatch	Change Cwatch 'Interface does exist' message to NOTICE severity	7078
Data Usage	Fix mobile phy detection on data usage start using faster processors	7865
DHCP	Fix corrupted IA address when sending OPTION_IA_N	7424
Ethernet	Fix Ethernet ports intermittently reflecting incorrect state when bridging	7795
Event System	Correctly handle double quotes in event target <code>cmd_template</code> value	5736
	Fix <code>va_event</code> syslog messages showing with no space between date and serial number	7513
FXS	Treat FXS port as single channel instead of group to ensure 486 (Busy Here) response for an incoming call while FXS port is off-hook instead of 503 (Service Unavailable)	
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
	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 salve (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 50 ms	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 auto restart of Telit and Cellient CDMA modules by critical process utility	6371
	Fix band selection for SIMCom7070E module	7833
	Fix EID detection when APDU contains the tag and length	7522
	Fix LTE band selection for bands larger than 63 for Sierra Wireless modules	7680
	Fix operator scan	7693
	Fix Quectel registration status poller	7484
	Fix Sierra Wireless module FOTA upgrade CRC32 checksum calculation	7724
	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 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
	Ignore SIM in/out events from eSIM that could lead to crash on Sierra Wireless modems	
	Improve behaviour on network down for QMI connections to ensure reconnection after network outage	6325
	Log a warning that GNSS is not supported for SIMCom7070E mobile module	7822
	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	
	Split registration check and signal check 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
Monitor	Fix mobile phy detection on monitor start using faster processors	7863
		7864
Multiwan	Fix crash caused by incorrect mobile phy detection on start up using faster processors	7835
	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
	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 ifName 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
	Replace invalid spaces in hostnames with '-' at run time	7829

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
	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/ 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/Dynami c 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 <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
Web/Mobile	Added display of LTE bands supported by SIMCom7070E	7565
	Fix <code>va_mobile</code> restart on save & apply via web UI	7494
	Simplify mobile configuration using tabs via web UI	7707

Web/Mobile Manager	Show supported LTE bands for enable/disable via Web. web: services->mobile manager->lte	
Web/Realtime Graphs	Fix display of Realtime Graphs for mobile interfaces web: status->Realtime Graphs	7029
Web/Status	Only show hardware capable features	6966
	Only show multiwan status when enabled	6966
Web/System	Fix duplicate firewall package in configuration export	6904
	Support missing configuration options for SSH connection identity, verbose and VRF via web UI web: security->ssh->Identity cli: dropbear.dropbear.Identity web: security->ssh->Verbose cli: dropbear.dropbear.verbose web: security->ssh->VRF cli: dropbear.dropbear.VRF	6703
Web/VHMI	Fix broken upload of DPS private key file	
WeConnect	Add missing ripd and openvpn 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
		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 dsl 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
Firmware	Prohibit downgrading router firmware on models using Sierra Wireless Toshiba NAND flash to an unsupported version (< 25.03.43.014)	7488
Mobile	Fix Quectel RM520N restart after switching to QMI mode	7243

11.7Release 25.03.43.019

Module	Short Description	Mantis
IECD	Fix clock sync time in IEC101 force_clock_sync to use local time instead of UTC	7208
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 selection of bands above band 63 for SIMCom7600G-H	7356
	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 timestamp to use local time instead of UTC	7240
Web/PoE	Web UI now correctly displays the number of PoE ports available	
Web/PoE Status	Web UI PoE Status enhancements - Fix values table values when device not connected; Add power info; Remove volts and current;	7166 7196 7198 7199
WeConnect	Fix support for WeConnect	6793 7218

11.8Release 25.03.43.010

Module	Short Description	Mantis
Activator	Set model URL parameter to uimodel rather than machtype in updates to Activator	6761
Certificates	Improve error reporting for common issues with HTTPS certificates	6987
CLI	Improve error message for <code>uci show xy</code> when <code>xy</code> does not exist	
Ethernet	Add <code>arp-scan</code> utility to DRS, ORK and SXL families for consistency with EDG family cli: <code>arp-scan -l</code>	5829
Firewall	Fix variable name clash in zone option presence test causing occasional restart issue	
Firewall	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	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	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 detection of Quectel RM520N 5G mobile module running latest firmware (RM520NGLAAR01A07M4G)	
	Fix handling of 5G status when operating in an 5G SA network	
	Fix to ensure the Verizon attach APN is set correctly	
	Only restart interfaces when Network Initialisation was indicated in OMADM	
	Record Unitac AUX antenna values regardless of MIMO state	
	Switch to AT!GSTATUS to retrieve signal information for Unitac modules	
OpenVPN	Fix privileges in OpenVPN to allow automatic restarts and fix open SSL errors in WeConnect	6793
SNMP	Correct vaUciMib implementation so that it matches the previous implementation	6903
SNMP/GPS	Fix GPS heading in MIB from degrees to micro degrees	6901
System	Fix issues when config files have execute permissions set and configuration audit is enabled	
TPM	Don't allow loading a new key if a key with the same label is already present	
VLAN	Fix VLAN bridging on Merlin and GW6650V models	6768 6844
Web	Fix error message typo when SSL subsystem fails to initialise Print openssl errors when init, cert load or key load fail	
Web/ Interfaces	Avoid restarting all interfaces when adding new interface via web UI	6922 6923
Web/Cwatch	Fix display of bridge interface on Cwatch interface list	6824
Web/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	6827
Web/Realtime e Graphs	Fix web UI real time graphs for QMI mobile connections web: status->Realtime Graphs	7029
Web/System	Restore javascript validation preventing underscores in system hostname	4555

11.9 Release 25.03.43.000

Module	Short Description	Mantis
BGP	Fix local VRF IP subnet not being advertised over WAN VRF using a BGP instance in the same VRF	6799
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
Mobile	Fix signal strength detection on older Unitac modules	6805
Web	Fix slow web SSL access when using keys from TPM	6734
Web/HTTP Server	Support configuration certificate keys in TPM web: services->http server->Certificate Key Format cli: uhttpd.uhttpd.keytype [PEM TPM]	6756
Web/Asterisk	Fix incorrect tos_audio and tos_sip range	6792
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 web: status->System Log web: status->Kernel Log	6794

11.10 Release 25.03.37.000

Module	Short Description	Mantis
Firewall	Fix issue with <code>fw reload</code> command	6773
USB Hub	Improve USB hub initialisation on boot. Also introduced automatic USB hub restart on failure detection	

11.11 Release 25.03.35.000

Module	Short Description	Mantis
Activator	Fix Activator active update command returning incorrectly parsed IPv6 addresses	4727
CWATCH	Cwatch now ignores non-existing UCI network interfaces	6644
	Ensure cwatch can handle comma separated ping destinations	
Cwatch	Fix cwatch using cached interface values rather than current values which caused cwatch to intermittently miss state changes	6784
Ethernet	Ensure Ethernet ports aren't bridged during startup on GW1042 to avoid leaking traffic between LAN segments during reboot	5906
	Fix Ethernet configuration when using ifnames portA and portB instead of va_switch	6743
	ifup now preserves VLAN interfaces when configuration has non VLAN and multiple VLANs attached to the same Ethernet interface	6247

	Increase frame size limit to accommodate large VLAN packets	6307
Event System	Fix boot success event	5927
Failsafe	Failsafe mode now uses SSH instead of telnet access	6663
Firewall	Fix issue with <code>fw reload</code> command	6773
	Insert the <code>MARK</code> configuration rule before the <code>redirect</code> rules in the firewall table	5405
FXS	Ensure <code>fxs0</code> is the default for option <code>fxs.interface.ifname</code>	
	Fix error messages when running <code>/etc/init.d/dahdi restart</code>	5959
	Fix FXS drivers not loaded when asterisk 'main' config section is not present	6607
	Prevent creation of duplicate entries in <code>dhadi/system.conf</code> which prevented E1 spans being registered with asterisk	6174
	Remove <code>callerid</code> option from <code>sip.clients.conf</code> as no longer used and causes issues with hunt groups	6175
GRE	Fix GRE keepalives	6554
IECD	Added conversion from 4 Modbus 16-bit registers (int64) to iec104 float	
	Added missing implementation of T0, T1 and T3 timers to address IEC104M link not closing on <code>ifdown</code> <pre>web: scada->iecd->master protocols->configure iec104->iec104-X cli: iecd.port.iec104m_t0 (def: 5 secs) cli: iecd.port.iec104m_t1 (def: 15 secs) cli: iecd.port.iec104m_t3 (def: 20 secs)</pre>	
	Added RTS-CTS flow control of the serial (when not using <code>tserverd</code>)	6615
	Added support for conversion of 2 modbus 16-bit registers storing FLOAT32 to IEC104 type 13 float	
	Fetch CRL file using a link from peer certificate	5955
	Fix CSV import issue when parsing bitmap options	6555
	Fix issue in IEC104S to IEC101 in transparent mode, where 104 ASDU CA=65535	
	Fix issue in IEC61850 master to DNP3 slave conversion of analog float values	6593
	Fix issue processing IEC101 reset process response	
	Fix issue with DNP3 Gr3 (double bit) to IEC104 single point conversion	6671
	Fix parsing parsing of <code>-casdu</code> switch in IEC104 firewall	6298
	Fix serial configuration in modbus master	6540
	Fix tx buffer overflow and iecd crash when DNP3 Slave serving large number of points and events (500+)	6609
	Fixed incorrect cleanup while closing during IEC104S TLS session establishment	6636
	Fixed incorrect parsing of MQTT <code>SUB-ACK</code> packet	6295
	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

	Fixed load errors for custom SCADA firewall rules	6025
	Fixed MQTT hostname resolution	6308
	Handle multiple sessions, cleaning up in case of errors when fetching CRL file using a link from peer certificate	5955
	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
	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	
	IEC61850 Server: Update points from Modbus RTU when point have not been changed before in addition to when value changed	
	Improve debugging of IEC61850 client when processing control commands	
	Improved IEC61850 control command processing in relation to IEC101 and IEC104 single-double select-execute sequence	
	Improved IEC61850 SCL import and export into UCI file	6581
	Improved show statistics command when multiple RTU protocols are used per point	6580
	Improvements in the VRTU to IEC61850 slave conversion	
	MQTT Slave to MODBUS RTU: send MQTT publish only on value change	6376
	Support configurable IED name and LD name for IEC61850 slave web: scada->iecd->slave_protocols->configure_iec61850->IEC61850 IED Name cli: iecd.port.iec61850_ied_name web: scada->iecd->slave_protocols->configure_iec61850->IEC61850 LD Name cli: iecd.port.iec61850_ld_name	
	Support for Digital Input inversion in the IEC61850 server	
LED	Fix mobile signal strength LEDs on GW2300 series	
	Fix Port D LED operation on GW3300D	6243
Memory	Fix memory errors on GW1400 series	5620
Mobile	Add data-only configuration for Quectel EP06 module	
	Add display of additional Unitac signal values to <code>vam</code> command and web UI	
	Add MTU detection for Unitac modules	
	Add switch to add switch to data-centric mode for Quectel EC25 and SIMCOM modules	
	Added 5G network registration status	
	Added PCI display for Unitac modules	6251

Disable the APNs when connection is terminated for Unitac modules	6484
Ensure MTU does not exceed 1500 bytes on QMI links	6567
Ensure Quectel EC25/EG25 modules use GSM format for SMS messages	
Ensure that Verizon APN is correct for default/initial bearer	6154
Enter airplane mode before attempting to change the default LTE bearer to avoid issues with SIM failover	5991
fix <code>chat</code> command failing if previous <code>chat</code> aborted	6210
Fix crash when LTE band retrieval for SIMCOM fails	
Fix crash when <code>switch_sim</code> command is executed with no value	
Fix ESN display where leading zero's were being omitted	6345
Fix for interfaces not coming up after SIM switch on GW1400 series	6675
Fix for SMS received by Quectel EG25G via IMS in Verizon network	6594
Fix GW1400 series mobile module randomly disconnecting from USB bus	6304
Fix incorrect reporting of RSSI when using Unitac mobile module	6437
Fix interface name and type for Unitac modules on Merlin series	
Fix missing LTE band information on older Unitac firmware	6630
Fix multiwan to run with default group when no group name specified	
Fix performance issues on Sierra Wireless modules (introduced in 25.02.80.000)	6708
Fix second radio module initialisation in GW2300 series	6587
Fix to prevent the modification of the Verizon attach bearer	6043
Fix <code>va_roaming</code> ignoring <code>Stat=0</code> operators in roaming scan	6184
Fix <code>vam resetmodem</code> on GW1400 series	5969
Ignore network provided DNS addresses if option DNS configured	6372
Improvements to operator scan:	
<ul style="list-style-type: none"> • Now commence an operator scan as follows; <code>AT+COPS=2</code> (detach from network); <code>AT+COPS=0;+COPS=?</code> (reattach and commence scan, all in one operation) • <code>AT+COPS=?</code> timeout increased to 190 seconds • automatically retry a failed <code>AT+COPS=?</code> command if it fails within 15 seconds • <code>vam roaming</code> now includes scan duration in seconds 	
Incorrect SINR reported for Quectel modules	5951
Mobile connection no longer dropped when 2 nd antenna is disconnected when using Unitac modules	6446
Prevent <code>+CGEV: NW DETACH</code> trigger warnings in the logs	6616
Prevent crash when handling SIMs with invalid ICCID	6635
Prevent crash when no SIM slot specified for SIM switch command	
Re-connect to network automatically if <code>AT+CGATT=1</code> fails	
Rename 'phone number' to 'MSISDN' in mobile stats	

	Support new option to enable MIMO on Unitac modules (disabled by default).	6499
	web: services->mobile manager->advanced->Enable MIMO for Unitac radio Modules cli: mobile.mobile.unitac_mimo_enabled	
	VA Mobile roaming diagnostic now shows roaming info for all modems by default	
	cli: vam roaming	
	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
Network	Ensure ifdown kills all ifup processes on the same interface and not just the child processes	
	Fix dependent interface behaviour when parent WAN interface is using QMI mobile interface	6493
	Fix repeated ifup race condition on bridged interfaces	6265
NTP	Improvements to chrony operation for interface state changes	6631
PoE	Prevent attempts to disable ports on non PoE hardware to avoid erroneous syslog warnings	
PPP	Fix connection issue when two ppp links have similar UCI name	6654
QoS	Fix QoS initialisation	6560
Roaming Manager	Retry existing connection after routine disconnect when using Roaming Manager feature	
Routing	Enable FRR vty_enabled option in user interface	6613
RTUD	Added support for inverting digital inputs after reading from hardware	6208
	web: scada->rtud->advanced->Invert Inputs cli: rtud.main.invert_inputs (def: 0)	
SCEP	Added certificate expiry check during re-rollment	6235
	Change new cert and key permissions when they are installed at the end of the SCEP process. Also adjust the CRLs directory to allow strongswan write access for runtime CRL downloads.	5908
	Fix intermittent issue where only one SCEP request was sent when multiple SCEP clients were configured	6523
	Fix loading of SCEP CA certificate	6525
	Strongswan is now restarted after SCEP renewal to ensure the peer correctly deletes the existing IKE_SA	6190
SIP	GW1151 can now also act as a SIP server (registrar)	5758
SNMP	Fix creation of SNMPv3 traps	5943
	Fix failing snmpwalk on vaModem MIB when no roaming info available	5922
	Fix mibwalk error on .1.3.6.1.4.1.2078.3.1.2.4.2 when walking VA-MODEM-MIB::roamingOp* series of values	6618
	Fix SNMP configuration using TCP protocol	5930
SSH	Fix SSH login via private and public key.	6425
Strongswan	Allow IPsec tunnels to start when CA certificate download fails and blocking is disabled in scep_cert config	6324

	Do not split long PSK into separate lines which would cause PSK to be read incorrectly and Phase1 failure	6537
	Remove FlexVPN GRE IP addresses on tunnel termination	5924
	Fix IKE SA delete being sent with correct message id to ensure IPSec peer does not discard	6246
Syslog	Fix multiwan errors in log when multiwan not configured	6489
System	Changed password hash algorithm option value to a ListValue <code>cli: list system.main.passwrld_hash_algo</code>	5001
Syssem	Fix auditing of DMVPN configuration using option <code>audit_cfg</code>	
	Prevent download of incorrect firmware family	
	Prevent download of incorrect firmware family	
	Support image compatibility check on GW1150 to prevent download of firmware that does not support on board Sierra Wireless flash version	
TACACS	Fix ipv6 address support	6620
	Fix tab correction for TACACs+ user login via SSH	6527
Teminal Server	Increase port limit to 16	6267
	Added support for new option in GW2124P to control serial LED detection using DSR control signal when DTR/DSR signals are being used <code>cli: tserverd.port.led_dsr_detect (def: 0)</code>	
	Auto detect serial mode gpio control settings	5970
	Fix failure to recover from bind failure while interface down	6464
	Fix SNMP poll of TSERV-MIB	6477
	Fixed issue with auto detection of serial port names on GW2028	6313
	TPM	Fix RSA key loading on big endian platforms
	Improve support for TPM access from multiple processes to avoid TPM being locked by another process	6483
User Limits	Fix Procrustes user limit events	6538
VRF	Fix DNAT behaviour for alias interface within VRF	6705
Web	Fix web UI intermittently advising router is running in factconf when in config1	6547
	Improvements to web UI performance and load times	6178
	Sort web UI drop down headings	5909
Web/ Interface	Added <code>mtu</code> configuration option for PPPoEoA and PPPoA ADSL interfaces	5702
	Fix default gateway handling for DHCP protocol	6601
Web/ IPsec	Fix error on saving of configuration general section	6281
Web/ Multiwan	Allow multiwan configuration via web UI when no multiwan config options exist in configuration file	
Web/ Network	Show colour codes for interface status in network overview	6536
Web/ OpenVPN	Automatically add and remove OpenVPN network interfaces	6296

	Do not add <code>key_direction</code> option when set to its default value (bidirectional) when OpenVPN configured via web UI	6063
Web/BGP	Fix BGP network option for IP address/subnet input rather than interface name web: network->bgp->global settings->Network	6619
	Fix BGP network option for IP address/subnet input rather than interface name web: network->bgp->global settings->Network	6619
Web/Firewall	Fix summary page showing rules with option enabled '1' in configuration file as disabled	6765
Web/FXS	Add option to enable asterisk via web interface Web: services->sip->general->Enabled	
	Support FXS configuration web: network->fxs	5930
Web/GPIO	Change Web UI digital input mode default to dry mode	6060
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
	Changed free text fields <code>log_vaevent_on_change</code> , <code>vhmi_on</code> and <code>vhmi_dword</code> to selector on-off	6165
	Fix typo in DNP3 slave protocol option	6578
	Fix web UI issue in IEC61850 slave	
	Only show IEC104 TLS Common Name and IEC104 TLS Verify Depth options when IEC104 TLS Validate Peer Cert is enabled	6643
	Removed unused <code>iecd101_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/Mobile	Prevent option <code>ifname</code> configuration being added to mobile interfaces when configured via web UI	6501
Web/SNMP	Improvements to web UI SNMP configuration	
Web/System	Fix firmware flashing error message	6286
Web/Terminal Server	Added support for TCP Tap Port configuration web: scada->terminal server->port->advanced->TCP Tap Port cli: tserverd.port.tap_port (def: 0)	6291
Web/VA Event	Add length check in web UI for <code>snmp_auth_pass</code> and <code>snmp_priv_pass</code>	
Web/VRRP	Add support for configuration of VRRP Group Multicast Source IP web: network->vrrp->vrrp group configuration-> Multicast Source IP cli: vrrp.vrrp_group.mcast_src_ip	4057
Web/WiFi	Add WPA Enterprise configuration to web	5963

WiFi	Fix <code>ifup</code> transmission issue when WiFi is bridged with an Ethernet interface	6514
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11.12 Release 25.02.14.032

Module	Short Description	Mantis
ADSL	On GW6600 series start all PPPoA interfaces with <code>ifname nasX</code> . Previously only PPPoE and PPPoA interfaces with <code>nas0</code> are automatically started	6061
Download	Fix interrupted download when <code>va_vars</code> incorrectly states image not found. Download now correctly continues rather than starting again.	6354
Mobile	Fix duplicated ICCID when using WP76xx-AU module on Merlin4600 series.	6352
	Fix second radio intermittently not being detected on GW3300D series	
	Fix Unitac module detection (broken in release 25.02.14.030)	6387
TACACS	Fix TACACS behaviour when router is configured to only authorise authentication for SSH access (or other configured PAM services). Previously all authentication requests were sent to TACACS server instead of SSH only.	6050
TPM	Fix HTTPS incoming connection activation with key stored in TPM on Merlin4600 series.	6367
	Flush transient objects from TPM RAM upon session open on Merlin4600 series.	

11.13 Release 25.02.14.027

Module	Short Description	Mantis
WiFi	Fix intermittent incorrect WiFi interface name generated by <code>ifup</code> command on WiFi interfaces	6253

11.14 Release 25.02.14.024

Module	Short Description	Mantis
BFD	BFD rate changes now working as expected when multihop enabled	6255
	Fix BFD multiplier configuration	6242
Download	Fix size calculation when image download exceeds 10M	6033
	Increase time limit for image download to 5 hours (previously 2 hours)	6266
HTTP Client	Set download minimum rate limit to 1kBps	6266
PPPoE	<code>ifup <ifname></code> now correctly re-establishes when <code><ifname></code> is a PPPoE link and is already up	6241
Serial	Fix serial LED settings when <code>option serialPortName</code> is configured on GW2124P series	6219
Terminal Server	Fix TOS value support using <code>option tos_value</code>	

11.15 Release 25.02.14.016

Module	Short Description	Mantis
GPIO	Merlin4600 series digital input values changed to match GW2020 series for SCADA operation compatibility 0 = input not detected/open/low 1 = input detected/closed/high	
RTUD	RTUD auto generate config option now defaults to off in both web UI and router web: scada->rtud->main settings->Auto generate configuration cli: rtud.rtud.point_auto_config_on	6075
	Fix defaults for RTUD so web UI no longer shows errors when saving	6075
LED	Fix serial LED on GW2024P with GW2027 machtype	6167
Mobile	Fix IP connectivity when using Huawei 709 with firmware 11.652.65.00.00	6076
System	Backup, check and fix uboot environment in case of corruption on models using Sierra Wireless WP7600 series processor (GW1150, Merlin4600). Fixes rare situation where machtype could revert to incorrect model.	
WiFi	Ignore WiFi type when only single WiFi supported by firmware to avoid issues with third party AP's	5905

11.16 Release 25.02.14.009

Module	Short Description	Mantis
Ethernet	Fix default MAC address for Merlin4600 Ethernet ports	5740
GPIO	Merlin digital inputs now default to dry	5992
IECD	Fix data point handling where previously only the last data point was forwarded the SCADA master when using HART protocol	6046
	Fix IEC MIB walk	5920
	Fix IECD CSV files data point import.	5975
	Fix issue in handling periodic GI and Clock Sync timeouts in IEC101 Master	
	Support for CP24 timestamp format messages in IEC101 to 104 conversion	5980
IOSRVD	Fix for option auto_detect behaviour to not remove undetected devices from iosrvd config file	5522
IP PAD	Fix Flow control from X.25 network to serial in AT mode	5925
	Fix high CPU load for new IP connection to IP PAD causing data transfer from terminal to X.25 to fail	6006
Memory	Fix GW1400 series memory corruption	5620
Mobile	Fix crash when LTE band retrieval for SIMCom fails	
	Fix ICCID collection for second SIM on Sierra Wireless and Quectel EM06 modules. Previously showing same ICCID for both SIMs	5946
Network	Fix static default route configuration using target 'default' and netmask 0.0.0.0	5942

SFP	Fix interface failing to restart after network package restart	6079
Strongswan	Decrease OCSP/CRL fetch timeout to 3 seconds from 10 seconds to avoid resource issues for multiple tunnels using CRL	5954
	Exclude password field from re-enrollment requests	5993
	Handle DER or PEM format for SECP fingerprint	5879
	In case multiple root CA's downloaded, verify fingerprint of the root	
	Send DELETE message from IKEv2 delete task for initiator. Previously when initiator, the router terminated the IKE_SA without sending a delete which led to problems when connected against another VA router in responder role.	6052
Terminal Server	Fix loopback test for serial ports	5972
Web/IPsec	Support configuration for FlexVPN via web UI web: services->ipsec->connection->Route Interface cli: strongswan.connection.route_interface web: services->ipsec->connection->FlexVPN Prefixes cli: strongswan.connection.flexvpn_prefixes	6000
	Support configuration of local cert via web UI web: services->ipsec->scep certificate->Local Certificate cli: strongswan.connection.localcert	6000
Web/RTUD	Fix web UI configuration of RTUD auto generate config option	6075
Web/SCEP	Support configuration of SCEP fingerprint and CA Name via web UI web: services->ipsec->scep certificate->CA Fingerprint cli: strongswan.scep_cert->fingerprint web: services->ipsec->scep certificate->CA Name cli: strongswan.scep_cert->ca_name	6001
	Support configuration of serial port name via the web UI web: scada->terminal server cli: tserverd.port.serialPortName	5424
Web/Terminal Server	Support configuration of Serial Port Name via the web UI web: scada->terminal server->port settings->serial->Serial Port cli: tserverd.port.serialPortName	5424

11.17 25.02.14.000

Module	Short Description	Mantis
Activator	Added RADIUS support to active updates	3514
CESOP	Fix CESOP Mcp4821SetVoltage dac write failed on model GW6610-ALL	5747
Ethernet	Enhancements to GW1042 Ethernet health check to avoid configuration blocking health check pings. Now allow ping broadcasts through base0 even if default output set to drop in firewall and dynamically add strongswan bypass policy rule	5758
	Fix LED port D behaviour on GW3300D	5869

	Restored missing arp-scan functionality on GW6600V cli: arp-scan (ip - 1)	5829
Event System	Fix connection tester when using UCI interface name for ping source	5828
FXS	Fix handling of the DTMF characters A-D in SLIC driver. These characters were mapped incorrectly leading to a wrong regeneration by Asterisk when out-of-band signalling was used	5355
GPIO	New user friendly wet/dry configuration commands for USB GPIO daughtercard used by GW2024P (to be used instead of option inputs_dry_wet_mask) cli: input0_is_wet; input1_is_wet; input2_is_wet; input3_is_wet; input4_is_wet; input5_is_wet;	5145
GRE	Integrate keepalive responder to gre interfacesso every GRE interface will automatically start keepalive responder and reply to all GRE keepalive messages	5249
IECD	Changed IEC104 T2 timer from millisecs to secs web: scada->iecd->port settings->iec104 master->IEC104 T2 cli: iecd.port.iec104m_t2	
	Extend the size of config variable ioa_offset from 16 bit to 32 bit	5790
	Fix behaviour of iecd restart cli: /etc/init.d/iecd restart	4981
	Fix behaviour of DNP3 sync time to use time from the RTU/Master rather than local time. cli: iecd.iecd.dnp3_app_sync_time	5429
	Fix incorrect handling of broken iecd ui commands cli: iec set	5461
	Fix missing ACTCON (neg) for received DNP3 response from DNP3 RTU with Status 2	5497
	Fix when iec104_close_rtu_link_on_master_down=1, DNP3 RTU up-down status is not set. Fixes incorrect (UP) value in the RTU health point sent to IEC104 master	5717
	Fixed an issue in MQTT control group mode OR and Implemented new group mode NAND web: scada->iecd->port settings->mqtt-s->MQTT Control Group Mode cli: iecd.port.mqtt_ctl_group_mode (and or nand)	5723
	Fixed DNP3 master issue when parsing g1v1 object not calculating start index correctly	
	IEC104 to Modbus conversion: implemented conversion from fixed point integer to float.	
IEC104 to Modbus conversion: implemented conversion from fixed point integer to float		
Modbus master now supports reading non consecutive registers (siemens device)		
IOSRVD	Fix IOS fault inidicator critical-non critical error handling	5431
	Implement monitoring of Beijer IOS fault register to detect device faults	5404
IP PAD	Improvements to padd show config.	

	Set default AT command mode break detect default to enabled	
L2TP	Add new debug options for L2TP speed	5769
	web: network->interfaces->L2TP->advanced settings->TX Speed	5770
	cli: network.interface.l2tp_bps_tx	
	web: network->interfaces->L2TP->advanced settings->RX Speed	
	cli: network.interface.l2tp_bps_rx	
	Fix vendor name in XL2TPD package	5771
Mobile	Add LTE band information to <code>/var/state/mobile</code> when using Huawei ME909U module (firmware > 12.63x.x)	3278
	Added Operator Code (5-digit MCC/MNC) and Cell ID to <code>vam -a</code> command	
	Always disable fastpath on mobile interfaces on GW6600V	4900
	Ensure HDR credentials are always provided when needed for CDMA connections. Fixes situations where this information could be lost by module or config transferred to another router.	5735
	Ensure LTE band lock stays enabled on Hucom modules	5447
	Fix missing IPv6 default route on QMI interfaces	5755
	Fix packet corruption caused by too small buffer size in Quectel/Simcom driver when using QMAP	
	Fix RSRP and RSRQ values reported by Simcom 7070 module using <code>vam -a</code> diagnostic command	5383
	Fix SIM in/out handling for Quectel modules	
	Fix SIM switch on Quectel RM500Q mobile module	5863
	Fix SMS msgs not decoding on 3Ireland Jasper SIMs	5888
	Fix <code>va_mobile</code> failing to start when SMS is enabled and caller config section is missing caller name option	4507
	Fixes for Cellient CDMA module crashes while dormant	5760
	Re enable PPP support on GW1150 series	
	Removed reset of default bearer APN at startup	5775
	Support custom name for mobile config section	5542
	Support LTE band limitation for Huawei ME909U module (firmware > 12.63x.x)	3310
Network	Fix <code>va_switch</code> behaviour on network restart on GW3300D	5869
	Fixed \$ character in interface password leading to password corruption	5434
NTP	Include new UTC time in syslog message when clock is stepped	5659
OpenVPN	Added support for key direction configuration	5762
	web: services->openVPN->certificates->Key Direction	
	cli: openvpn.openvpn.key_direction	
Power over Ethernet	Add PoE recover mode for GW2300 Rev E routers. This fixes issue with PoE recovery when moving between battery backup and mains power	5685
	Fix port disconnect disconnect event	4220
Radius	Support for Radius added to JKG family	

SCEP	Support rsaes-oaep encryption for pkcs7 signedData password	5872
SNMP	Fix MIB related issue running snmpd as dedicated unique user	4965
Strongswan	Enable support for GCM encryption algorithm	5774
	Fix crash when verifying ECSDA signature	5633
	Fix IPSec tunnel operation when with waniface option present	5698
	Support multiple FlexVPN tunnels with different interfaces	5862
Syslog	Fix logging when conloglevel set to unsupported value	4482
	Suppress excessive kernel logging on Dakota WiFi	5312
System	Added -M option to ping for mtu discovery behaviour cli: ping <ip_address> -M PMTUD_OPT	
	Debrand web and command line interface	5498
	Fix crash in in uci list command cli: uci list	5596
	Remove stale sshd service files causing issues with telnet access on GW6600V	5333
TACACS	Stpport for TACACS added to JKG family	
VDSL	Store VDSL firmware version in /tmp/.vds1220-fw-version in addition to syslog	5583
Web/BGP	Added BGP status page web: status->BGP	5819

	Added missing options to web UI	5817
	web: network->bgp->global settings->Maximum Dynamic Neighbours	5818
	cli: bgpd.routing.max_dynamic_neighbors	
	web: network->bgp->global settings->VRF	
	cli: bgpd.routing.vrf	
	web: network->bgp->bgp neighbours->BGP instance	
	cli: bgpd.peer.routing	
	web: network->bgp->bgp neighbours->Inbound Route Map	
	cli: bgpd.peer.inbound_route_map	
	web: network->bgp->bgp neighbours->Outbound Route Map	
	cli: bgpd.peer.outbound_route_map	
	web: network->bgp->bgp neighbours->EBGP Multihop	
	cli: bgpd.peer.ebgp_multihop	
	web: network->bgp->bgp neighbours->Inbound Soft Reconfiguration	
	cli: bgpd.peer.inbound_soft_reconf	
	web: network->bgp->bgp neighbours->Source Interface	
	cli: bgpd.peer.source	
	web: network->bgp->bgp neighbours->>Password	
	cli: bgpd.peer.password	
	web: network->bgp->bgp neighbours group->BGP instance	
	cli: bgpd.peer_group.routing	
	web: network->bgp->bgp neighbours group->network	
	cli: bgpd.peer_group.network	
	web: network->bgp->bgp neighbours group->ASN	
	cli: bgpd.peer_group.asn	
	web: network->bgp->bgp neighbours group-Local Peer	
	cli: bgpd.peer_group.next_hop_self	
	web: network->bgp->bgp neighbours group->Holdtime	
	cli: bgpd.peer_group.holdtime_sec	
	web: network->bgp->bgp neighbours group->Keep-Alive Interval	
	cli: bgpd.peer_group.keepalive_sec	
Web/IECD	Enhancements and extra diagnostics to IECD status page	5432
		5727
	Fix description of IEC104W option in web UI	5441
	Fix IECD status page not displaying results	5529
Web/L2TP	Fix interface connect button for L2TP interfaces	5768
Web/Mobile IP	Fix web UI configuration when no configuration options exist in package dynamics	5787
Web/Power over Ethernet	Added PoE restart button to web UI	4220
Web/RADIUS	Add RADIUS and TACACS support to web UI	5591
	web: system->system->PAM Authentication	
Web/SNMP	Fix web UI configuration when no configuration options exist in snmpd system and agent configuration sections	5786
Web/Status	Added VRF and Protocol to routing table display	5823
	web: status->active routes	
Web/WiFi	Allow selecting modulation mode for Qualcomm qcawifi drivers	5219

Web/X25 PAD	Fix web UI configuration when no configuration options exist in package padd	3053 3054
Web/X25 XOT	Fix web UI configuration when no configuration options exist in package vald	3050 3051
WiFi	Fix Dakota WiFi defaults to be more secure	4408

11.18 25.01.40.033

Module	Short Description	Mantis
Activator	Information sent to Activator via httpclient now includes all previous values: imei, sim1_iccid, sim2_iccid, hw_rev, sim1_imsi and sim2_imsi	
Busybox	Truncated ping responses now no longer discarded but noted in the ping response message	5658
DHCP	Improved reporting when external DHCP server detected	5520
Dropbear	Remove stale sshd service files causing issues with telnet access	5533
DSL	Improve PPPoE initial connection on DSL lines	5612
Event System	Connection tester type link now correctly checking link state	5535
	Fix connection tester failing when ping source is specified web: services->va event system->connection tester->Ping Source cli: va_eventd.conn_tester.ping_source	5526
	Fix crash when invalid options are specified in config	1977
	Fix intermittent delay in sending syslog events	4902
	Fix to ensure failed SNMP traps are retried on delivery failure.	5527
	Fixes for crash caused by recursion	4734
IECD	Fix DNP3 Epox Timestamp (UTC)	5656
	Added command point pass through	
	Changes to support DNP3 Secure (S) for DNP3 non secure (M) application fragment forwarding	
	Do not send IEC104 health point messages while IEC104 master (uplink) is down	
	Fix conversion of DNP3 timestamps to IEC104 if timezone differs from GMT	5653
	Fix DNP3 bulk SP and DP points update	5586
	Fix DNP3 initialization sequence issues	5599 5660
	Fix DNP3 Master object parser incorrectly processing 32 and 16 bit point variations with time	5544
	Fix DNP3 to IEC104 protocol conversion: missing ACTCON(neg) for received DNP3 response with Status 2	5497
	Fix double point sending incorrect DPI: Indeterminate or Intermediate (0)	5524
	Fix I5EC104S TXQ overflow	5650

	Fix IECD DNP3 Master and Slave Transport Function incorrectly sending segmented frames	5541
	Fix IECD DNP3 master parsing of g121 and g122 objects (security statistics)	5543
	Fix IECD file transfer issue in DNP3 Transparent mode (dnp3s_transp_fwd=1))	5592
	Fix incorrect DNP3 tracing in IECD when receiving multi-segment transport sequence	5540
	Fix intermittent crash while processing IEC104S DL TxQ	
	Fix queueing mechanism dropping frames received before IEC104 Datalink is declared as down/deactivated	5572
	Fix time stamp manipulation in IEC101-IEC104 conversion with iec104_force_app_layer enabled	5632
	IEC101 - IEC104 Transparent Mode conversion now no longer discards the entire message if there are multiple objects present in the message and IOA mapping is not found for one of the objects; any correctly mapped objects will now be sent.	5626
	IEC104 to DNP3 conversion: configurable TRIP-CLOSE depending on 104 cmd value ON - OFF	
	IOSRVD: Added capability to set custom point names	
	IOSRVD: Do not remove undetected device configurations from /etc/config/iosrvd file when device is not detected, and option device_auto_detect is enabled	5522
	MQTT: Fix behaviour of mqtt_ctl_vars_init_state option	5675
	New global config option start_delay_secs sets a wait time before iosrvd proceeds with initialization to avoid starting before tserverd. cli: iosrvd.main.start_delay_secs	5525
	Remove updating of local point after execution of 104 command - instead let RTU update the corresponding feedback point	
	Support for inter-operating with DNP3DCU	
Mobile	Set LTE attach bearer for Huawei ME909 to ensure attaching to configured APN rather than default APN as detected by the mobile module	5634
NTP	Defer chrony server instances until UCI interface is up to avoid misleading chrony errors in syslog	5550
	Fix incorrect stratum served to local clients. Fixes issue where local NTP server was defaulting to stratum 10, overriding the stratum retrieved from the remote NTP server once the clock had synchronised. Stratum can still be forced though configuration of option stratum however this is not recommended.	5550
PPP	Recover from connection stalling indefinitely when CHAP success message is lost in the network	4631
Radius/ Tacacs	Support for Radius and TACACS added to JKG family	
Serial	Fixed problem in Atmel firmware leading to a Tx FIFO overflow on hardware models that use the Atmel serial card	5607

Syslog	Fix changelog not recording first change to each module after initialisation	5616
System	Add hotplug script debug logging option cli: system.main.hotpluglog	5646
Web/Event System	Support for custom facility and target configuration options for syslog target web: services->va event system->event destination->Facility cli: va_eventd.target.facility web: services->va event system->event destination->Severity cli: va_eventd.target.severity	4739
Web/xDSL	Removed unsupported xDSL configuration options from web UI for GW2300 models	5518
	Support for configuration of ATM bridge via web UI on GW2300 models	5516

11.19 25.01.40.028

Module	Short Description	Mantis
Ethernet	Fix intermittent port state status detection on GW3300D series	5385
FXS	Change FXS DTMF handling so tones are untouched once a call establishes. Change sip timert1 parsing so it no longer raises a confusing warning.	5355
Mobile	Fix mobile module intermittently not initialised on USB on boot on GW7300 series	5358
Network	Fix carrier check to only run for Ethernet interfaces	5409
Web/WiFi	Allow configuration of modulation mode	5219
WiFi	Support for option to hide SSID web: network->wifi->interface configuration->Hide ESSID cli: wireless.wifi-iface.hidden	5375

11.20 25.01.40.019

Module	Short Description	Mantis
Activator	Fix to correctly detect 'Software Up To Date' status from Activator	5481
Event System	Fix corrupted email target messages Fix crash when SNMP target template length was multiple of 4 bytes	5463 5460
SNMP	Ensure that both specific field (SNMPv1) and snmpTrapOID (SNMPv2+) are set correctly.	5449

11.21 25.01.40.016

Module	Short Description	Mantis
Event System	Fix intermittent memory management error	

	Increase event system target name length from 16 to 127 characters	5420
	Report system error when send fails due to session open failure	
	Use UDP port 162 by default for SNMP trap destination port	5435
Mobile	Add additional echo detection as an indication of radio module reset	5410
SNMP	Revert change to run SNMP with unique user privileges to allow all MIBs to be queried	

11.22 25.01.40.004

Module	Short Description	Mantis
DNS	Properly handle duplicate DNS entries on multiple interfaces	4993
Ethernet	Fix bridging between VLANs	5021
	Fix port separation in GW3300D series	
	New automatic watchdog script to check switch MIB counters and reset if not incrementing on GW1042 hardware	3589 4423
IEC101	Corrected erroneous message <code>IEC104M APP</code> in IEC101 App layer	5184
IEC104 Gateway	Changed default for <code>iecd.port.iecd.t0</code> option to 700ms to correspond to serial transmission speed of 9600bps <code>cli: iecd.port.iecd.t0</code>	5148
	Fix DNP3 Master sending wrong time to RTU	5289
	Implemented checking chrony NTP sync status and stratum before clock sync rewrite	5079
	Fix issue when converting from two DNP3 single points into a single IEC104 double point	
	Support for IEC104-S File Transfer (control direction)	
	Fix MQTT publish payload missing closing braces in the JSON formatting	5408
	Reject 104 to Remote IO command with Negative ActCon if the value of the point is the same as new value	
	Fix DNP3 sending incorrect time to RTU	
Ignition sense	Fix ignition sense on GW3300D series	5370
ISAD	Add info on cell technology used for each bin	5159
Mobile	Ensure mobile interfaces get a /32 netmask.	5173
	Fix auto connect if mobile interface dropped during DST transition hour when moving from BST to GMT	5334
	Fix connectivity issues in PPP mode with some APNs due to dialled address in dial string	5314
	Fix fix signal strength reporting for Asiatel modules	5146
	Fix parsing of special characters in mobile username and password	5070
	Fix Quectel EM06 GPS location	4940
	Fixed bug in the reinitialisation of the QMI control code which led to a failure to detect the loss of connectivity and failures when trying to re-establish connectivity	5242
	Improvements to detection and recovery of mobile module restart	5310

Network	Prevent duplicate default route when using PPP mode for a mobile connection	5130
	Show interface name for WiFi interfaces in <code>network_status</code>	5077
Power over Ethernet	PoE now defaults to off during reboot	4411
	Web UI PoE status now shows power used by each port in Watts	5332
RTUD	Auto detect digital IO system paths and auto configure depending on number of detected IOs	5176
Serial	Fix RS485 receive on GW3300D series	5271
SFP	Fix SFP transmission on machtype FW2028	5122
	Use static default MAC addresses for SFP interfaces	5164
Strongswan	Don't reject certificates with invalid certificate policies. The certificate policy itself is still considered invalid and is not returned in the auth config resulting from trust chain operations.	5110
	Ensure all certs and keys are only writable by root and readable by strongswan	5161
	Fix crash when responding to connection initiation when NATT disabled	5293
Syslog	Frequent <code>upnp</code> messages in syslog no longer generated	5160
System	Avoid overwriting <code>/dev/null</code> with newly created config file when configuration audit is enabled	5080
	Fix hotplug loop when <code>asterisk</code> package missing from configuration on GW1150 series	5143
	Fix network interface initialisation on BMA and JAU families	
	Support for new mactype MTDAK002 and MTDAK003 for Rev E power board on GW2300 series	
Terminal Server	Fix <code>tserverd</code> startup	5101
	Fix <code>tserverd</code> crash when receiving split packets in an X25 call	5300
USB	Fix USB intermittently changing serial port mapping after reboot by introduction of new option for mapping a user-friendly serial port name to the underlying linux device name. See new features section above. <code>cli: tserverd.port.serialPortName</code>	5107
VALD	Fix incorrect use of <code>RESET_LINK_STATES</code> for unconfirmed data over TCP	5222
	Implemented wildcard matching in the XOT routes	5174
Web	Fix crash when trying to update configuration while in factory config	5171
Web/Firewall	Fix issue in port-forward rule creation via web UI	4872

Note: Changes for releases prior to ORK-25.01.40.001 have been archived