

# Digi Accelerated Linux (DAL) Release Notes Digi Connect EZ Serial Servers Version 23.9.20.63

# INTRODUCTION

This is a major release for ConnectEZ products. This is a recommended production firmware release.

The Digi Connect EZ products are a family of next-generation, multi-port serial servers that connect serial peripheral devices over an IP network. They provide a modern, secure platform with expanded network connectivity and functionality relevant to today's applications.

- Serial servers provide secure, easy EIA 232/422/485 serial-to-Ethernet integration of virtually any device into wired Ethernet networks. They are ideal for use in a wide variety of demanding industrial applications such as automation, robotics control, centralized device monitoring and management, data acquisition, and point -of-sale applications requiring COM/TTY ports, serial tunneling or TCP/UDP functionality.
- Enhanced access control, management and configuration capabilities support key security requirements for critical infrastructure and distributed systems. The built-in Python environment enables application development and customization at the device level, including full device connection control, data manipulation and event-based actions.
- Management and configuration of the device is possible through Digi Remote Manager, web services, CLI connectivity with mass configuration and customization tools available to pre-configure devices prior to deployment

# **SUPPORTED PRODUCTS**

- Digi Connect EZ Mini
- Digi Connect EZ 2
- Digi Connect EZ 4
- Digi Connect EZ 4i
- Digi Connect EZ 8
- Digi Connect EZ 8 Wi-Fi
- Digi Connect EZ 8 MEI

- Digi Connect EZ 8 I/O
- Digi Connect EZ 8 I/O SW
- Digi Connect EZ 16
- Digi Connect EZ 16 MEI
- Digi Connect EZ 32
- Digi Connect EZ 32 MEI

# **KNOWN ISSUES**

- Health metrics are uploaded to Digi Remote Manager unless the Monitoring > Device Health >
   Enable option is de-selected and either the Central Management > Enable option is de selected or the Central Management > Service option is set to something other than Digi
   Remote Manager [DAL-3291]
- 1002-CM06 CORE modems are not usable with Connect EZ 8 devices. The 1002-CM06 CORE modem is end-of-life and no longer sold by Digi. It is suggested to utilize the 1002-CMG4-GLB CORE modem with the Connect EZ 8 products. [DAL-8068]
- The system uptime metric is reported based on the configured monitoring interval instead of the past hour [DAL-8494]
- In some cases, the **Network Activity** table on Dashboard in the web UI will show multiple redundant received/sent values [DAL-8427]

# **UPDATE BEST PRACTICES**

Digi recommends the following best practices:

- 1. Test the new release in a controlled environment with your application before you update production devices.
- 2. Unless otherwise noted, apply updates in the following order:
  - a. Device firmware
  - b. Modem firmware
  - c. Configuration
  - d. Application

Digi recommends Digi Remote Manager or Digi aView for automated device updates. For more information, follow the instructions for Digi Remote manager or Digi aView in the links below:

1. Instructions for Digi Remote Manager:

https://www.digi.com/resources/documentation/digidocs/90001436-13/default.htm#tasks/t\_update\_device\_firmware.htm

2. Instructions for Digi aView:

https://www.digi.com/resources/documentation/digidocs/acl-kb/default.htm#Subsystems/kb-6300-cx/update-firmware.htm

If you prefer manually updating one device at a time, follow these steps:

- 1. Download the firmware file from the <u>Digi firmware support page</u>.
- 2. Connect to the device's web UI by connecting your PC to the LAN Ethernet port of the device and then going to http://192.168.210.1.
- 3. Select the **System** tab on the top navigation bar of the page, then select **Firmware Update**.
- 4. Select the **Browse** button in the **Upload file** section.
- 5. Browse for and select the downloaded firmware file.
- 6. Click the *Update Firmware* button.

# **TECHNICAL SUPPORT**

Get the help you need via our Technical Support team and online resources. Digi offers multiple support levels and professional services to meet your needs. All Digi customers have access to product documentation, firmware, drivers, knowledge base and peer-to-peer support forums. Visit us at <a href="https://www.digi.com/support">https://www.digi.com/support</a> to find out more.

# **CHANGE LOG**

**Mandatory release** = A firmware release with a critical or high security fix rated by <u>CVSS</u>

score.

For devices complying with ERC/CIP and PCIDSS, their guidance states that updates are to be deployed onto device within 30 days of release

**Recommended release** = A firmware release with medium or lower security fixes, or no security

fixes

Note that while Digi categorizes firmware releases as mandatory or recommended, the decision if and when to apply the firmware update must be made by the customer after appropriate review and validation.

# **VERSION 23.9.20.63 (October 11, 2023)**

This is a **recommended** release

Part Number	Firmware	sha512sum	md5sum
EZ01-Mxxx	ConnectEZ1- 23.9.20.63.bin	bab800a1bc252a345f611472826cb9252a9a 13168474511cb2bc04b6e32560da61f46644 edf6d979b79160ae5731b53b7034f5efcf6ee ac6854d1879d5bb9226	5508134878610dbcf85d715e165 1a226
EZ02-Cxxx	ConnectEZ2- 23.9.20.63.bin	19eac7e4811ad9e6044c0ba818be381b3a05 9ba20cd742b0048000cee27af19535c352704 261b7d0a16526ff62132a6384dda0fbe07fcc8 b8c7a5dd53218766e	c47614cdfaa16f193d3f90b22510 3f71
EZ04-xxxx	ConnectEZ4- 23.9.20.63.bin	a9d1e0d903326a2c8adcecd0d26b71dc9717 894a5dabda5b5aa60662c188010a34eac767 e3055e451794c0fb4914e1cd3162f3cc627b0 d6aa0eea3bb70af667b	55b4d80cadaa936c321443fde6 b1ece3
EZ08-Axxx	ConnectEZ8- 23.9.20.63.bin	1878516d261d8903c8edc4b3110e0dec85b5 6f47382d5231b24ff019ab29b6699e86ef47f4 b02fcb21a102b5b3a334daf7c452242b8b12 e5bea6b6effe59964c	d63b1565409da94a2c983d211c aa00b3
EZ08-Bxxx	ConnectEZ8W- 23.9.20.63.bin	8a2a9882cec7796d4305061aaa1a04749ad6 117a8bcd5f734aa15fbdb5e76b36c4470333 d782bc46ed7b4cc7733fb7916b48cf0170f3f9 39997e0ffe694a6d79	c7aaeb00c39892030ab55a7fbed ac2f8
EZ08-Cxxx	ConnectEZ8M- 23.9.20.63.bin	3ff228d2e18bc5f2b4325dfff08b1e96f54fc71 c718c5b8b18b94185f2bae394283016ec7759 25bfc0be5873c0dcd2fa4458bf392e45193e6 0f9f92a2501f8aa	ad656fc8fd3a280af38a329ce9a9 b4e8
EZ08-Dxxx	ConnectEZ8IO- 23.9.20.63.bin	e84f761d2eab39d0e4788654d41a76947e1c 0ca6351489f4c4bd902bdc9b1323f7bb88f3b 9204dee5ef50063e0b0730f7f33cdb32503d0 db1d6730f25a7a24b8	7ef8ab80eb097696209773369fe d4cea
EZ08-Exxx	ConnectEZ8IOS- 23.9.20.63.bin	a3e0b85d2c0984f0635e3799bf44501739643 78d46497ebe722bee9fed8420d5fa93c6f08a b72314b05e9cbd0a681f286c8b8117198c3f9 2291db272fabec915	6da9011c7fd990acd1e591df9f8 2e83e
EZ16-Axxx	ConnectEZ16- 23.9.20.63.bin	419710a572ac4790dc8bd69d6df9c3c25602 829f7d0361983943b6890355755f8d230da06	e5769a0391be60c568452c64dd 9e73af

		5903dd73c618742ffa809adf0822b31b9447c c1c927ebecc09b6b38	
EZ16-Cxxx	ConnectEZ16M- 23.9.20.63.bin	39fee449d67ebdf9e2586d11b6f39d3cd3cb3 076d1fffaecc6f58d79dcf8d11cff0517c64cc8 4f53e5b3acfe408358fec59ba55b978df157fd 8ae72ca9657380	1f40a238083ca87c75252dc5b6d 420c8
EZ32-Axxx	ConnectEZ32- 23.9.20.63.bin	dde65c9580ad7994ca45b099f07a1a269f623 1385e0892bb519ffca23277be5bd5d696326e b835af194d959c4fdea23d648350cdd910d5 64b6124e5ce803b965	21a6b702bb9a82232d4b9376b3 88df87
EZ32-Cxxx	ConnectEZ32M- 23.9.20.63.bin	115b582e2fb3735a8f994dc7ab6072665f112 6b1944e1a76509bd67a1c18d3665cca785cd 761ece3e59c9fc408a5c967f36a63f9adecc65 80605b9ed15971af0	0cfd85b9c27421b3d04dd84d05 e3b0c1

### **FEATURES**

- Added Status → Premium Features page to the web UI for locally viewing and managing subscription licenses available from Digi Remote Manager [DAL-6636]
- 2. Added a link to the *Dashboard* of the local web UI to register and add the device to Digi Remote Manager [DAL-6787]
- 3. Updated the layout of the *Dashboard* page of the web UI to combine the network interface and cellular modem details into a single *Network Activity* panel [DAL-7361]
- Added MACsec (802.1ae) support and configuration options under VPN → MACsec [DAL-6825]
- 5. Improved support for integration with HotspotSystems [DAL-7722]
  - 1. PSD2 SessGarden
  - 2. Login/Logout URL
  - 3. Configurable remote webserver FQDN
- Added new System → Primary Responder mode setting to lock down the device to comply with AT&T FirstNet and Verizon Response Verify security options (disabled by default) [DAL-7849]
- 7. Added new **Services** → **DNS** → **Domain allowlist** configuration settings to control what domains are accessible through the Digi device (default is to allow all domains) [DAL-6741]

- Added new Services → DNS → Fallback server setting to control what DNS server is used as the fallback in the event that no configured or DHCP-obtained DNS servers are available [DAL-7439]
- 2. Removed mention of DHCP set in **System → Containers → Address** help text [DAL-6453]
- 3. Add nrbroadband APN to the fallback list for AT&T SIMs [DAL-8038]
- 4. Add NFOD-INET-APN01.com.attz APN to fallback list for AT&T SIMs [DAL-8337]
- 5. Add fbb.home APN to fallback list for T-Mobile SIMs [DAL-8105]
- 6. Add iot.tmowholesale APN to fallback list for T-Mobile SIMs [DAL-8026]
- 7. Updated PLMN and ICCID prefix list for T-Mobile SIMs [DAL-8105]
- 8. Added a new DHCP option to **Network** → **Interface** → **WWAN** → **Type** configuration setting to support advertising the device's hostname over a cellular network [DAL-7641]
- Added new Network → Interface → IPv4 → Force link option to keep the IP network interface up even when the physical Ethernet link for that interface is down (disabled by default) [DAL-8066]
- 10. Added symlinks in / root directory for file system directories accessible remotely through Digi Remote Manager [DAL-7646]

- 11. Add serial number to SNMP MIB [DAL-7720]
- 12. Added new configuration settings under **Services** → **SNMP** to provide a dynamic set of properties and values to add as OIDs to the SNMP query response
- 13. Added new *PDP context index* setting when configuring an APN to control what PDP context the APN gets written to within the SIM [DAL-6573]
- 14. Added **network.modem.modem.dhcp\_relay** debug setting to enable DHCP relay support within the cellular modem (disabled by default) [DAL-7312]
- 15. Updated the input voltage and system/CPU temperature metrics to limit the measurement to one decimal point of accuracy [DAL-7958]
- 16. Updated the Containers status page in the web UI to validate the name of the container file being uploaded [DAL-7617]
- 17. Added help text to the pop-up modem when performing modem firmware updates on the **Status → Modems** page in the web UI [DAL-8174]
- 18. Update *Status* → *Serial* web UI page to show Log button in *modem emulator* mode
- 19. Updated the **System → Firmware** page in the web UI and the pop-up notification in the CLI/webUI to include the build date of the firmware [DAL-8022]
- 20. Updated the setup of serial ports configured with remote TCP listeners to utilize the SSL version specified in the **Services** → **Web administration** → **Minimum TLS version** configuration setting (Default TLS v1.2) [DAL-7915]
- Added new System → Containers → Working directory configuration setting to specify the
  path within the container to use an the initial working directory when starting the container
  [DAL-8007]
- 22. Renamed the title and updated the help text of the **System → Containers → Clone DAL** configuration setting, which is now titled **Clone host system libraries** [DAL-7989]
- 23. Improved the log messages while the cellular modem is connecting to better reflect the Surelink state and why Surelink tests were skipped [DAL-8085]
- 24. Add WAN Bonding status and details to support report information [DAL-8371]
- 25. Updated the help text for TACACS+ under **Authentication** config settings to note that the **#** character cannot be used in the TACACS secret key [DAL-8273]
- 26. Add **#swpkgv** AT command to support report for additional firmware details from Telit modems
- 27. Add support for configuring lower serial port baudrates from 50-600bps [CEZ-588]

All bugs listed affect firmware versions 23.6.1.118 and older unless specified.

- Fixed issue preventing modem firmware OTA updates from completing when initiated via Digi Remote Manager and the update was done over the device's cellular connection [DAL-8333]
- 2. Fixed race condition where the NTP server failed to start if an active NTP sync was in progress [DAL-8122]
- 3. Fixed issue where Surelink fail\_count metric was not reported to Digi Remote Manager when Surelink tests were passing [DAL-7975]
- 4. Fixed rare issue where the cellular carrier reported to DigiRM would be "0" instead of the carrier name [DAL-7924]
- 5. Fixed occasional issue where the device would not update Digi Remote Manager with the new firmware revision after a modem firmware update was initiated from Digi Remote Manager [DAL-7983]
- 6. Fixed issue where Surelink metrics weren't reported properly to Digi Remote Manager for bridge interfaces on the device [DAL-7990]

- 7. Fixed issue where the cellular APN metric was not being reported to Digi Remote Manager (affects firmware versions 23.3.x through 23.6.1.105) [DAL-8055]
- 8. Removed meaningless warning in system logs stating that there was an invalid key for the anywhereusb service (affects firmware versions 23.6.1.x) [DAL-8000]
- 9. Fixed issue where the Digi device could connect with the configured APN list out of order if it had previously connected with one of the configured APNs [DAL-8335]
- 10. 1003-CM07 CORE modem: Fixed issue preventing failover to secondary SIM slot with EM7411 modems (affects firmware versions 23.6.1.x) [DAL-8191]
- 11. 1003-CM07 CORE modem: Fixed rare issue where the EM7411 and EM7511 cellular modems could initialize in the wrong mode and prevent cellular connectivity [DAL-7923]
- 12. Fixed issue preventing cellular connections with the secondary SIM slot if multiple network interfaces were configured per-SIM slot (affects firmware versions 23.3.x through 23.6.1.x) [DAL-8115]
- 13. Fixed missing temperature info in the Admin CLI, web UI, and in the metrics reported to Digi Remote Manager [DAL-8132]
- 14. Fixed issue where the wrong destination IP and MAC address was used for Surelink ping tests on GRE tunnels [DAL-8385]
- 15. Fixed issue where cellular utilization reports in Digi Remote Manager would be skewed due to the device reporting incorrect Rx/Tx data usage metrics to Digi Remote Manager (affects firmware versions 23.6.1.x) [DAL-8380]
- 16. Fixed bug in the output signals in Realport serial mode [RP-237]
- 17. Fixed issue where WPA2 mixedmode Wi-Fi client-mode connections would revert to WPA-only and prevent connection to WPA2 APs [DAL-8443]

### SECURITY FIXES

The highest level vulnerability that has been fixed in this release is listed as a CVSS score of 9.8 Critical

- 1. Update all product firmwares to use OpenSSL version 3.0.8, including configuration setting to enable FIPS 140-2 compliance
- 2. Updated OpenSSH to version 9.3p2 [DAL-8097]
  - 1. CVE-2023-38408 (9.8 Critical)

# **VERSION 23.6.1.105 (July 16, 2023)**

This is a *mandatory* release

Part Number	Firmware	sha512sum	md5sum
EZ01-Mxxx	ConnectEZ1- 23.6.1.105.bin	e89ba7698284311688b43b4df501ff706161f1 2fb10768b0a49ab093c44466751359aad7f2d 1d164f884be78cfd738ac17fe0cf2128e28181 8fa2f49950d588f	
EZ02-Cxxx	ConnectEZ2- 23.6.1.105.bin	e36ef23d403e6a693b401ada92e79bc3b25a 95d2ab6142850fe3fc4e62db4cf9e6e6202be cb8ebe248e81009c6738920d79c056b9172b 89875e22188d1c0373a	ff129378c0bf8827f106fd4a2eb6 94c0
EZ04-xxxx	ConnectEZ4- 23.6.1.105.bin	713e37a2f57841aadc69dc57d636db7123a3 6a2bb9aaacaecdf6f6a3757c47fbc731b88b5 fa67169b9271ffb468e08a5474e41183f14f09 d51e5e8bfeeaca025	ab595ff2eca5867146885f8e6dfa 74bc
EZ08-Axxx	ConnectEZ8-	fe6790edb691a9c71a6ada5b8732654bcae5	73add9c4e06b71355d26a69cab

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	23.6.1.105.bin	30713adafd0886d0446eb0e91aee293a8285f 7936f5280fd4bf4133a13212b002e900ecc33 8676af11f64746e913	34feff
EZ08-Bxxx	ConnectEZ8W- 23.6.1.105.bin	74e4d8175d21d7c451c8baea898a0f9a5af95 2d6b230c19e0958db8ae1cf5dc01f17ca1a61 bd5274645c1eff781654bde3210a63a2faaaf6 6131d56c0526f377	42caa1d31caeec35a08302cd41f c97fa
EZ08-Cxxx	ConnectEZ8M- 23.6.1.105.bin	2147b2d214a3840d8717f4c08ebfac9c68dd4 92fbcd619a47ee8f38735a751c882492a673c c04d93b00f566d69819b2f613663798a85d1a b6e8f66d661d7ad66	ca0937879e727a6a1749904d62 6d6e49
EZ08-Dxxx	ConnectEZ8IO- 23.6.1.105.bin	bd894bb9f9fba8176d2b15f1d57dfb87a829c 79ffc00253809eb734b27bc224f7f257190ce6 8dfd06c104f3246587e8d53ce78361ee6665f 950d24be5190bb69	c44bf9f50dd63bbe9049a8e06ffa d3af
EZ08-Exxx	ConnectEZ8IOS- 23.6.1.105.bin	ca1d79019e9fe28d971178bff615fb37585ae dd16ff8e50a327d9a9f76f4314f1a0f2196987 6aed6f9ef75ee21237532b5736f139f5840c0b 81722c6abb9b387	d8f5e95c14e693e3d3c8bb00b81 71be1
EZ16-Axxx	ConnectEZ16- 23.6.1.105.bin	18ff6306450818e253ec8b44afcc00299e3b92 ef8f988c8c6a2689c37320a33189c1b03820e 6e489653c5758d8602eb5ff9d816755674847 75cbf3a06e2df8d3	42fba48f5673b42c904363ea3e9 8a993
EZ16-Cxxx	ConnectEZ16M- 23.6.1.105.bin	c3094a8f3d6d458e9a89cbf703e2913919e76 b6823a2cf8f1bd6b61f4bdb1a895c6caec7e5 571b6372dda9887f0ff908051dfad2332ea54 22a73cbf2adcceb2c	20238a7be362b0a3b86329a228 9f85c8
EZ32-Axxx	ConnectEZ32- 23.6.1.105.bin	bc18ee3f49ba2245c6fea9194f01d9ec0f1b12 a7bbb41e2f9edd7e2410d94aef66cd0e7ec9 683a6830b5214e732bf17f2ac795eef67039a b2a8248004095666b	eb5f5580e14250865f3e4a732f49 8371
EZ32-Cxxx	ConnectEZ32M- 23.6.1.105.bin	423ae911a9d88f6866320650774c99044c8d4 61e8c39d278709200b5056230098edd9d8ba c94439326853ff9ea6e7a320613b58d5b56e3 d0984d7d309db3d07f	b45e8f38d0c9f09af3aafd55e151 911c

### **FEATURES**

- 1. Added new *Modem emulator* mode to serial ports to allow them to act as a dial-up modem emulator for handling incoming AT dial-ins [DAL-6669]
- 2. Added ability to receive a remote command from Digi Remote Manager to perform a SIM survey, which will attempt connections to each SIM inserted into the Digi device, then switch back to its previously-used setup before the SIM survey and report each of the SIMs' connection details to Digi Remote Manager (signal strength, APN used, connection status, cellular tower info, etc)
- 3. New unsolicited query\_state RCI responses in DigiRM for reporting system temperature and modem firmware versions [DAL-6550]

- Add System → Advanced Watchdog configuration options to monitor memory usage, critical services and automatically reboot if those services fail
- 2. Automatically generate a support report in /opt/digi-support-watchdog-mem-full.bin before a device reboots due to a watchdog memory-full condition [DAL-7948]
- 3. Added option for receiving modem\_firmware\_update remote command from Digi Remote Manager with a specific modem firmware version to update to [DAL-7656]
- 4. Added the following details to the metrics sent to Digi Remote Manager about the cellular

modems inside the Digi device [DAL-7800]

- 1. Add a unique ID tag to the response messages sent to DigiRM after a modem firmware update was initiated
- 2. Include modem name and updated version in the modem firmware metric
- 3. Ensures that modem firmware versions listed for the device are updated in DigiRM after a modem firmware update completes
- 5. Report the modem IMEI to Digi Remote Manager even when no SIM is installed [DAL-6778]
- 6. Added the following new values to the datastream metrics and RCI query\_state responses reported to Digi Remote Manager [DAL-6868, DAL-6549, DAL-6655, DAL-6576]
  - 1. cellular/x/sim/y/registration roaming/registration status of the modem
  - 2. metrics/eth/1/surelink/rtt ICMP ping round-trip time for the Surelink ping test
  - 3. metrics/eth/1/surelink/fail\_count Count of failed Surelink tests, which gets reset if the tests start passing
  - 4. vpn/ipsec/x/disconnects number of disconnects the device has had on an IPsec tunnel
  - 5. eth/x/link up/down psychical link status of the Ethernet port
  - 6. metrics/wifi/x/ rx/tx/packet-count statistics for any configured Wi-Fi client-mode connections
  - 7. metrics/wifi-ap/ rx/tx/packet-count statistics for any configured Wi-Fi access points
  - 8. sys/chassis/voltage input power supply voltage
  - 9. sys/chassis/temp temperature of the device
- 7. Immediately upload all health metrics on the first time it establishes a connection to Digi Remote Manager [DAL-7559, DAL-7504]
- 8. Display the active interface used to connect to Digi Remote Manager in the Dashboard page of the web UI and the show cloud Admin CLI output [DAL-6446]
- 9. Updated the minimum-allowed location update and cellular modem update interval to 1-second [DAL-7440]
- 10. Added new Location source option to directly poll the cellular modem's GPS port [DAL-7682]
- 11. Added new *VPN → IP tunnels → Enable open routing* configuration setting to allows packets destined for an address which is not explicitly in our routing table to exit the iptunnel [DAL-7076]
- 12. Added new *Network* → *Advanced* → *TCP retries2* configuration setting to control the number of times an unacknowledged TCP data packet will be retransmitted before the connection is considered lost (default 15 retries) [CEZ-570]
- 13. Update the help text descriptions for all serial port modes for additional clarity
- 14. Updated the SSH server enabled for serial ports to reference any configured custom SSH options in *Services* → *SSH* → *Custom configuration* [DAL-7863]
- 15. Added a new configuration setting under the options for a serial port set in PPP dial-in mode to control whether a default route gets added for the PPP interface (default: disabled) [DAL-7798]
- 16. Improved wording in the error message when a TACACS server cannot authorize the full CLI command due to RFC length constraints [DAL-7852]
- 17. Create a system log if WAN Bonding is enabled but unsubscribed [DAL-7882]
- 18. Removed the **Network** → **SD-WAN configuration** configuration section [DAL-7881]

### **BUG FIXES**

1. Fixed errant IPv6 packets from being transmitted over a PPP dial-in serial connection [DAL-7799]

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 Fixed issue where WI-Fi hotspots would not startup correctly if they weren't linked to a 96000472\_C Release Notes Part Number: 93001347\_W

- network bridge [DAL-7623]
- 3. Fixed issue with improper LWM2M setting on LTE Cat-M modems preventing registration issues with AT&T and Verizon [DAL-7383]
- 4. Log message about intelliFlow being unsubscribed only if intelliFlow is enabled
- 5. Fixed configuration migration of IPsec Surelink settings from 23.3.x firmware to not add an *update\_routing\_table* action, as that action is not applicable to IPsec tunnels [DAL-7892]
- 6. Fixed incorrect status reported for Surelink status of IPsec and OpenVPN tunnels in the CLI and web UI [DAL-7893]
- 7. Fixed issue in Surelink migration from 22.11 and older firmware where IPsec and OpenVPN tunnels would not have their Surelink settings migrated over [DAL-7747]
- 8. Fixed issue in Surelink migration from 22.11 and older firmware where success\_condition=all wasn't always properly migrated [DAL-7803]
- 9. Fixed issue in Surelink migration from 22.11 and older firmware where ping tests switched their default ping size from 20 to 1 byte, which can cause issues on some cellular networks [DAL-7769]
- 10. Fixed incorrect Surelink status reporting when Surelink was disabled on a network interface [DAL-7552]
- 11. Fixed logic of default DNS test so skipped tests are considered passing tests [DAL-7814]
- 12. Fixed rare issue where the device would report its MAC address as all zeroes when it initially connected to Digi Remote Manager [DAL-1609]
- 13. Fixed issue with utilizing BGP capability 70 to DMVPN hubs [DAL-7740]
- 14. Fixed bug where SNMP wouldn't provide updated settings if someone configured a new hostname for the device [DAL-7442]
- 15. Fixed bug where Intelliflow data would reset each time a network interface update happened on the Digi device [DAL-7579]
- 16. Fixed but preventing users from configuring network subnets in OSPF routes [DAL-7603]
- 17. Fixed issue where multiple SSIDs were not being scanned when DFS client support was enabled [DAL-7608]
- 18. Fixed issue preventing EG25-G & EC25-AF modems from connecting with certain SIMs with APNs that required username/password authentication [DAL-7644]
- 19. Fixed missing ICCID and modem firmware revision was not reported by the device [DAL-7757]
- 20. Fixed rare issue where LM940 would power off after a modem firmware update [DAL-7719]
- 21. Fixed intermittent issue where LM940 modem would disappear after switching SIM slots [DAL-7638]
- 22. Fixed issue preventing devices from performing OTA firmware updates through the **System** → **Firmware update** page in the web UI or the system firmware ota CLI command [DAL-7539]
- 23. Fixed minor bugs in Realport authentication timing [DAL-7651]

### **SECURITY FIXES**

The highest level vulnerability that has been fixed in this release is listed as a CVSS score of 9.8 Critical

- 1. Update to Linux kernel version 6.3 [DAL-7606]
- 2. Updated busybox to version 1.36.1 [DAL-7819]
- 3. Update to OpenSSL version 1.1.1u [DAL-7818]
- 4. Update libcurl to version 8.1.2 [DAL-7817]
- 5. Update OpenSSH to version 9.3p1 [DAL-7816]
- 6. Update libgmp to version 6.2.1 [DAL-7820]

- 7. Update OpenVPN to version 2.6.4 [DAL-7822]
- 8. Update strongswan to version 5.9.10 [DAL-7823]
- 9. Update dnsmasq to version 2.89 [DAL-7533]
- 10. Update netifd/ubus/UCI/libublox to OpenWRT 19.07 build [DAL-6766]

# **VERSION 23.3.31.129 (May 4, 2023)**

This is a *mandatory* release

Part Number	Firmware	sha512sum	md5sum
EZ01-Mxxx	ConnectEZ1- 23.3.31.129.bin	210de552b71a4e54133461854b4284363a10 981f6be3b5022a2d043ae4a2de01d4932492f 09b41cc894a5d4297e8200f773af847eb1035 396017683b4db92762	071f2145c9bfbd6e1fcb19268f86 cd78
EZ02-Cxxx	ConnectEZ2- 23.3.31.129.bin	3c50b37870bdf99fe1f798d0319f0db7c9db4 569b4273138b945b056e44855412eb249a90 2d78e28ba1321145aa518e00b6f04351021b b0262de43a99e647534	c9a25cff9dd6e0ae6315bf4c9d58 90c7
EZ04-xxxx	ConnectEZ4- 23.3.31.129.bin	21ad4195119a3fd4b6982283dcbd1b44fa5f7 cac066338fdcd281b6cd440661b08612205a 73b4eacecf5fe24bfa2ce17c123ba9ee74c382 f85e6eb77f17d9a08	ed79f6cc9877b5a2e08ecc03b7d 77dd5
EZ08-Axxx	ConnectEZ8- 23.3.31.129.bin	5101f4a05d2172214aef8391dde0071b872da afb23c150ac09cd95cdec1ef7b267b5ce97ca 10a389ea26c445e5ce2e85266529d58473d2 afda0440b116fcc4ab	2025bd6a5bb7bedb47ea341331 5b23df
EZ08-Bxxx	ConnectEZ8W- 23.3.31.129.bin	2a8ab62a3404c0c091827cbeeef596f1204c7f d58e4c887230e951e4eefc3d0815627305d5 bf1421a96bed62b2cd0a45182ccdb5ed0dcb 82d1dd7efe601549e0	499e4087305d73ad4e233893df8 815fb
EZ08-Cxxx	ConnectEZ8M- 23.3.31.129.bin	11ccedca457360e72b716abe6fb65bff406e4 56357fcc986ae6274f9e8f4f41fcd83fe3266c8 d9891ce83ce2dee035f3e6d3d0ae19088fe9a ba700f9d7f204bd	20646806f684e899581091c0a8cf 9f6d
EZ08-Dxxx	ConnectEZ8IO- 23.3.31.129.bin	03509125f81ffd0fc9b54bad96fa04f4681622 6f4cb7d46b0d8202020c294b010653078667 9cf4921be530ef20913a7584e2d03c64f54616 c6273b2cea38af19	b94e596125a0d997715a834594 557334
EZ08-Exxx	ConnectEZ8IOS- 23.3.31.129.bin	471a6339cf1b8bae012bb5b3ac04b97006cb 096b82372571655d44006d0a6857f61826a4f 20119fc4fbd773ac7dc205287df43b0f206e06 8fe6b6e7d64a95a49	a1296965d7bb1723e38d2235c2 def4f1
EZ16-Axxx	ConnectEZ16- 23.3.31.129.bin	3b548195a40e1593375d2273621e58d3ce7a 8fb7b9a509febe543cb0a89c044e665237970 e90a459e363bc587eb2aa111bdbd69c7f044 5cf0fe117d1bf0658e9	277c6dcb1040edddcfda247ad6 c04b74
EZ16-Cxxx	ConnectEZ16M- 23.3.31.129.bin	4ac19cae05a93c2c2a85f4fcfd2f7ab76c59e0 84673643e2106a82ea0e979fbaa2aca3e5422 de0c32d309b334247a647bcf0a3a100e0c67f 18a23d6e85fc9f56	0c86c8cb2d58950e9c828f46f31 7ca91
EZ32-Axxx	ConnectEZ32- 23.3.31.129.bin	a2a1780945234fd182a37649d48610817c063 dfdb70ae92e1200765de8e2e2f3bff43085b3 dc4ba810181245699a505c5af6c5810ec3773 08ba0ba98f0426fca	1dd6b074d969b56bb81dad03b 06e8342

EZ32-Cxxx	ConnectEZ32M- 23.3.31.129.bin	613cf09858634f9727d27b043910ae1045321 66c4e5009b496ac5aea04d88a52acf30d009	9d68578a37d788ff8b264c7ccbe
	25.5.51.125.5111	bb90693fc6cb37d58d92f72029c04b6c29921 11566702cb46e844b9	03121

### **FEATURES**

- 1. Redesigned Surelink configuration settings [DAL-6646]
  - Surelink configuration settings are now listed in a single section under each network interface, as opposed to a separate section for IPv4 vs IPv6. The layout of the connectivity tests and recovery actions to perform have been redesigned to provide a more streamlined setup. Any configured tests and recovery actions are performed in the order they are configured, along with a new capability for integrating custom scripts as a test or recovery action. See the <u>Surelink section</u> of the Digi device's user guide for additional details.
  - 2. Important note: when upgrading a device with non-default Surelink settings from 22.11.48.x or older firmware to 23.3.31.129 or newer, there are some instances where those Surelink settings will not migrate and the device will revert back to default Surelink settings. Digi strongly recommends that you test the new firmware release in a controlled environment with your application before you update production devices. Pay particular attention to your Surelink configuration settings before and after the firmware update, and review any changes before rolling out the 23.3.31.129 release to mission critical devices
  - 3. Known migration issues with 22.11.48.x and older firmware:
    - 1. If an IPv4 Surelink specifies one test but the IPv6 specifies all tests, then all tests will be selected and Surelink may not behave as expected. The same applies for the reverse IPv4 specifies all tests and IPv6 specifies one test.
    - 2. The previous version didn't correctly go out the correct interface in every condition. It was possible to pass the ping test without the interface even being up. This is now fixed in 23.3.31.129 firmware and newer so tests are forced out the correct interfaces by marking the packet.
    - 3. If migrating from a very old version (firmware versions 20.2.x and older), the config cannot be migrated as it is incompatible. In this scenario, we use the default Surelink configuration for all interfaces
    - 4. If there are conflicting Surelink action or test settings for IPv4 and IPv6 (eg intervals etc), the device will use the IPv4 in preference when migrating the configuration as part of the firmware
- 2. DMVPN phase 1 spoke support with NHRP or mGRE, including compatibility with Cisco DMVPN hubs [DAL-6709]
- Added ability to utilize the cellular modem as a time sync source under System → Time
  [DAL-6693]

- 1. ModemManager updated to version 1.20.6 [DAL-6406], which includes:
  - 1. improved 5G SA-mode and NSA-mode performance
  - 2. RSRP/RSRQ/SINR statistics for 5G SA-mode connections
  - 3. Native multiplexing for dual-APN setups
- 2. Added **show surelink state** Admin CLI command to display the overall pass/fail status of the enabled Surelink tests [DAL-7070]
- 3. Added options under *Network* → *SD-WAN* → *WAN bonding* to configure the mode for each tunneled interface and the overall mode of the WAN bonding tunnel [DAL-7394]
- 4. Updated WAN bonding saneclient to version 20221103 for 5G and 1Gbps performance [DAL-

- 7005]
- 5. Added new **show wan-bonding** Admin CLI command to display status of WAN Bonding tunnel [DAL-7395]
- 6. Added new **Status → WAN Bonding** page in the web UI to display status of the WAN Bonding tunnel [DAL-7395]
- 7. Added distance between the WAN bonding and Ethernet bonding setting sections in the configuration accordion
- 8. Added configuration settings under **System → Containers** to allow the container to be autostarted on boot with optional parameters and restart if the container stops {DAL-7021]
- Added configuration settings under System → Containers to setup shared directories between the host filesystem and the container [DAL-7021]
- 10. Support for US cellular consumer SIMs without requiring the user to first configure the APN [DAL-7248]
- 11. Disable mDNS by default on EX/IX/TX products for improved cellular performance [DAL-7354]
- 12. Added GlobalGIG APNs to fallback APN list [DAL-6886]
- 13. Added new **AT&T LWM2M support** setting for enabling/disabling LWM2M on the modem (enabled by default) [DAL-7009]
- 14. Added IPv6 support for MQTT broker, location servers, and mDNS service [DAL-7111]
- 15. Include the system hostname (if configured) on the Dashboard page in the local web UI [DAL-7428]
- 16. Added support for SHA2 ciphers for IKEv2 IPsec tunnels [DAL-7038]

- 1. Fixed issue preventing users from locking a device to use a blank APN [DAL-7248]
- Pre-shared keys for configured Wi-Fi SSIDs are now obfuscated in Digi Remote Manager [DAL-7107]
- 3. Fixed issue where configuration options for selecting the Wi-Fi channel appeared as "None" in Digi Remote Manager [DAL-7482]
- 4. Fixed issue preventing device from falling back to its local system time when running as a NTP server [DAL-7233]
- 5. Fixed issue preventing SIM failover when the device was configured with separate network interfaces set to match by carrier instead of SIM slot [DAL-6910]
- 6. Removed 3-second stop/start delay when making configuration updates to the MQTT broker settings [DAL-7104]
- 7. Fixed issue where *tail* CLI command required a filter option in order to utilize the match option [DAL-7038]
- 8. Fixed issue preventing WAN bonding interface from appearing in the **show route** CLI output [DAL-6829]
- 9. Fixed issue where initial Surelink test would fail if the cellular modem was configured to be in passthrough mode [DAL-6224]
- 10. Fixed possible routing issue between GRE/IPsec with Cisco peer GRE/IPsec using VTI configuration [DAL-6722]
- 11. Fixed issue where serial logging enabled on Realport serial ports never closes the logging session [DAL-6748]
- 12. Fixed issue preventing SMTP notifications from using TLS encryption [DAL-7079]
- 13. Fixed invalid link in the local web UI to the product user guide [DAL-7304]

### **SECURITY FIXES**

The highest level vulnerability that has been fixed in this release is listed as a CVSS score of **9.8** *Critical* 

- 1. Update to Linux kernel 6.1 [DAL-7179]
- 2. Update OpenSSL to version 3.0.8 and 1.1.1t [DAL-7261]
- 3. Update netifd to version 18.06 [DAL-6280]
- 4. Update libexpat to version 2.5.0 [DAL-7082]

# VERSION 22.11.48.11 (March 24, 2023)

This is a *recommended* release

Firmware	sha512sum	md5sum
ConnectEZ8-22.11.48.11.bin	71A8F8524FD2197F01C8F858A065B01A7515 5FCD69BC6299A881D1A960CF66774C6A343 7C5237F3648458241722861DF634CD35927C 83DC7810360B061C2FB00	DDB203856B1967E928D5352FB326C600
ConnectEZ8W-22.11.48.11.bin	77B0E7AED770F3147A1AC3D4E519908A9D6 733C4C70ADCB13D4B0349EB8B9D043D761 46304C7F7C5AE3C8EE285EE1C74BB12FFB3 76236C54B2ED5D166E201497	7ACF0D42D6767EA92A8F5D9FFEFF1352
ConnectEZ8M-22.11.48.11.bin	BD211E9AE01CD525161DF6E93E416D0B61C C2E4A799764E349957F18ABB59645C3C2024 105E6F2FB55E82751E0313F5C27F8A93DE32 D0A0BE1A7F9C647E38CA7	C13A7F8B35F6639B7198460EB1996056
ConnectEZ8IO-22.11.48.11.bin	26C1E39BCCEBA4A5770214D8544AF86B88F 7E0F8A7A4390FF947C2301FCC3D3771EBF21 B65A57B496F5BC9B4DE7D663A64B083281F DF7A342BCA6EBCA06F58FE	85B860F168882381496F62A332DE0FA2
ConnectEZ8IOS-22.11.48.11.bin	08C34D43E30EC31459DF0D4D560DDBC9F68 0C3099D2BB547E2CD87A23E181E97DEBC2A 0167075F1BB6BD3A2B510D071D2B4BAD7F 900819DED44A459A37C2FF07	9A3004A5A7A5F1F54D1A316649C90F37
ConnectEZ16-22.11.48.11.bin	9AEAF9E4C6519D8A6F4EA858D1712FE3DE3 0739C4A4515DEAAA363A2DC8C52B5F02AA8 CAE30C7A76C970202AA0782E5A2BAF47E0D 9CE5B9D26404239CB63126A	5672444F942F84FD46C19036C641854B
ConnectEZ16M-22.11.48.11.bin	C5B82356C459B2BE7BE19AB74450350AE8D 663D12D6B135A66085CEE32FFC7FF019C82 912F17EE34068F7112047E9BE714C93F4739 ABE15A2478EDB0901E2039	F8480FC3E86C11D825B95EF1AE058D38
ConnectEZ32-22.11.48.11.bin	9945C2BC4F275AED021F95E9FCDEEE2C9AB 13F8DF5A15A994E5D2B44C34FA75118F47D 419AD308DE5530996DEB02A5EB3A44661EC B2F4F7F9EE6EF034175896C	FD416FD3AB0794AAB6D80BF58F1BD666
ConnectEZ32M-22.11.48.11.bin	5E929B571DDE764EB54DECD5834E96CCBB 17143403D655834E021420F321BF7D2DA106 3D58D8B6436392F4006C112208B884F01083 3733EDCA6AB036DD2A0362	EB479EA7280B3DF50CB8EF3BDB959B38

# **FEATURES**

1. Added support for 8, 16, and 32-port variants of the Connect EZ product family.

# **VERSION 22.11.48.10 (November 24, 2022)**

This is a *mandatory* release

Firmware	sha512sum	md5sum
ConnectEZ1-22.11.48.10.bin	7d55a9d4d5e0075d16ae75e76a606b974e3118 9a7afd9d68e8b029e160fced1f707ca5c6f68421 a75605165dd477d2cc211485e99d0c5d896985 37bbef32c6cb	ebef16391cd74d38d0a56f5409ca5566
ConnectEZ2-22.11.48.10.bin	63a36e7838dec7c9a3215397c37484710d98da 9071bd5288285792665daeb6ab113e2ad22e3 91648f7db77c9f74def73dd280ed44ff87bb313 5bd39aa8683871	79bf296b33c435e2f12f7e0dde107742
ConnectEZ4-22.11.48.10.bin	b3153e847637eab8353ff29cd1d7ce4714d256 ffe8b8eedc23d5b7608d3c2fded5edb53785f62 c326299bb3e0c5f19bdaae5c8bec91e7896025 6f597c92154ef	c36bdbec6856f8e3941103934feb965d

### **FEATURES**

- 1. Updated the intelliFlow feature to integrate with Digi Remote Manager for aggregated insights and analytics [DAL-6656]
- Add options under Network → Routes → Routing services for configuring Next-hop routing protocol (NHRP) advertisements [DAL-6711]
- 3. Added advanced watchdog to monitor critical services and automatically reboot if those services fail. The advanced watchdog also monitors system memory usage and will automatically log an error and reboot the device when memory usage exceeds 95%. The advanced watchdog settings can be configured and the *System → Advanced watchdog* section of the device's configuration [DAL-6094]

- Added new System → External Storage page in the web UI for mounting and interacting with external storag devices. These settings can also be configured under the System → Storage configuration settings [DAL-6683 & 6686]
  - Removed system storage Admin CLI commands. These actions for mounting and interacting with external storage devices are now controlled through the System →
     External Storage page in the web UI, or under the System → Storage configuration settings
- New System → Log → Event categories → External Storage system event log for notifying when a device's external storage exceeds a specified percentage used (configurable with the Percent used setting for the external storage device) [DAL-6687
- 3. Add option under *VPN* → *IP Tunnels* → *Mode* for supporting mGRE tunnels [DAL-6709]
- 4. Added option under Network → Advanced settings to allow ICMP redirect messages (disabled by default) [DAL-6013]
- 5. Disable automatic modem/device firmware update options if using DigiRM [DAL-5738]
- 6. Added new *Signal strength query interval* setting under the *Network → Modems* configuration options to control how often the cellular modem is polled for signal strength and other network status updates (default is once every 5 seconds) [DAL-6272]
- 7. Display the LTE Cat-M or NB-IoT network type in the Admin CLI, local web UI, and Digi Remote Manager metrics for devices with ME910c1-WW modems [DAL-6155]
- 8. New **tail** and **grep** Admin CLI commands
- 9. Send container datapoints to DigiRM with the configured container name instead of

- container index number [DAL-6551]
- Update wording of help text for the Authentication → Methods options in the device configuration settings to provide clarification on the mode of operation between authoritative versus non-authoritative options [DAL-6928]
- Add modem scan timeout option to *Scan* window on the *Status → Modems* page in the web
   UI [DAL-6938]
- 12. Update error message in the web UI when restoring a configuration backup if the web connection is lost before a response is received [DAL-6553]
- 13. Added new *Data logging* options under *Serial* configuration settings to have any data sent/received on the serial port logged to the system logs in addition to whatever mode the serial port is in [DAL-6719]
  - Remove options in the local web UI and Admin CLI for manually starting/stopping/clearing serial logs. These actions are now controlled under the *Data logging* configuration settings

- Fixed occasional issue where containers could not start due to a permissions issue [DAL-7041]
- 2. Fixed intermittent issue preventing configuration restores from the Admin CLI due to the output of the **show config cli\_forma**t command presenting configuration settings in the wrong order [DAL-6435]
- 3. Fixed issue in digidevice.sms python library where it couldn't process MMS messages [DAL-6952]
- 4. fix output of iperf speedtests in the Admin CLI [DAL-7001]
- 5. Disable GPS reading on ME910c1-WW modems to prevent CPU utilization spike from ModemManager [DAL-6575]
- 6. Fixed intermittent issue with SIM failover on devices with Telit LM940 modems [DAL-6569]
- 7. Fixed intermittent issue preventing modem firmware updates if no SIM card was inserted into the active SIM slot [DAL-6309]
- 8. Fixed issue resulting is slow upload speeds for clients connected to a Wi-Fi hotspot [DAL-6674]
- 9. Fixed intermittent issue in IPsec strict routing mode where a default route change could result in packets not going through the IPsec tunnel [DAL-6518]
- 10. Fixed intermittent issue where a device configured as a L2TP LAC would sometimes drop its tunnel and not automatically reconnect [DAL-5415]
- 11. Fixed intermittent issue where a device configured as a L2TP server would sometimes drop packets from L2TP client tunnels [DAL-6696]
- 12. Fixed issue preventing L2TP tunnels from running if they were configured with a name longer than 12 characters [DAL-6718]

# **SECURITY FIXES**

The highest level vulnerability that has been fixed in this release is listed as a CVSS score of **9.8** *Critical* 

- 1. update Linux kernel to version 5.19 [DAL-6558]
- 2. update shellinabox to version 2.21 [DAL-5430]
- 3. update systemd to version 245 [DAL-5421]
- 4. Prevent escalated filesystem access through DigiRM [DAL-6784]
- 5. update OpenSSL to version 1.1.1s [DAL-6991]
- 6. update jquery to version 3.6.1 and jquery-ui to version 1.13.2 [DAL-5686]

7. update default OpenVPN server cipher from AES-256-CBC to AES-256-GCM [DAL-5737]

# **VERSION 22.8.33.50 (August 26, 2022)**

This is a *mandatory* release

Firmware	sha512sum	md5sum
ConnectEZ1-22.8.33.50.bin	a619fa418fbe70626c246f55ff579ee4fcf5fe7b9 011dd3a5bf776ac01cadf849c86d4c48b1fde0c 800dc2ded39ff9c0bfd0dd0dcb36a0588f57c22f 6e8230ba	75d269dd5d039673908134fc4871885b
ConnectEZ2-22.8.33.50.bin	fd61703ef7d05917f04871526135159ccfa2bd7 de0e997ec73b68ef8a09b1663b0e2c7c1083c4 6acb5e592dcc557e016e045b2247d02722e375 e517670f5e401	bd5826aa433441366c4c8231d2860231
ConnectEZ4-22.8.33.50.bin	7900594e2b1f2ce1212bd3ae5cd823ba6af25d d644917713423a7444ba41780ac6d9aed9fe71 2ea48fc17d33f23393edba8a713f97b585d0345 c8fa53077e6f5	649ae99a1a5c5ffb0284ee233c964bc4

### **FEATURES**

 Added configuration options for running a PPPoE server in IP passthrough mode [DALP-1045]

- 1. Update firmware OTA downloads to utilize the Digi Remote Manager firmware repository (firmware.devicecloud.com) [DALP-606]
- 2. Always display *Central management → Firmware server* configuration setting regardless of which central management service is selected [DAL-5719]
- 3. Always display *Central management* → *Speedtest server* configuration setting regardless of which central management service is selected [DAL-6527]
- 4. New *modem firmware ota download* Admin CLI command for downloading cellular modem firmware from the Digi firmware repository [DAL-6541]
- Add ability to specify DFS channels under Network → Wi-Fi → Client mode connections for background scanning when DFS client support is enabled [DALP-1004]
- 6. Add cellular carrier name and *PLMN ID to Status* → *Modems* page in the web UI [DAL-6554]
- 7. Mark Containers as a premium feature enabled via Digi Remote Manager [DALP-1038]
- 8. Support the ability to start/stop containers via RCI commands from Digi Remote Manager [DAL-6468]
- 9. Added new metrics for sending container status, name, CPU load, and disk usage as datapoints to DigiRM [DAL-6404]
- 10. New **show eth** Admin CLI command to show the link status of each Ethernet port [DAL-6126]
- 11. New *poweroff* CLI command to perform a graceful shutdown of the device without automatically rebooting [DALP-982]
- 12. Added new *Strict routing* setting to IPsec tunnels that, if enabled, will only route packets through the tunnel if both the source IP and destination IP match the IPsec tunnel's policies instead of NAT-ing traffic that only matches the remote network policy [DAL-5317]
- Added new MS-CHAPv2 option under L2TP → L2TP network servers → Authentication
  method to support clients that require MS-CHAPv2 for authentication to a L2TP/IPsec server
  [DAL-6327]

- 14. Store kernel crashes and debug logs across reboots and automatically add them to the system logs in /var/log/ [DAL-6496]
- 15. Include AT#FWSWITCH output in support reports [DAL-6580]
- 16. Added **network.modem.modem.gea1\_cipher** debug config setting that can be can enable GEA1 cipher and speed up initial connectivity and SIM failover on Quectel modems [DAL-5258]
- 17. Automatically refresh the **System → Firmware Update** page in the web UI after a user clicks the Duplicate Firmware button [DAL-4750]

All bug fixes listed below affect firmware versions 22.5.50.62 or older unless specified otherwise

- 1. Added new *Network* → *Routes* → *Routing services* → *BGP* → *Networks* section for defining specific IP networks to advertise to BGP peers [DAL-6368]
- 2. Fixed issue where manual carrier selection through the web UI, configuration settings, or Admin CLI would fail to connect if the SIM required a APN username/password with CHAP authentication [DAL-6552]
- 3. Fixed L2TP setups so it only adds a default route for the tunnel if the defaultroute custom PPP setting is specified [DAL-6328]
- 4. Add *timeout* option to *modem scan* Admin CLI command to allow users to specify a longer scan period for SIMs that can roam to a larger number of nearby carriers
- 5. Fixed buffer limitation of 1024 characters when copy/pasting text into the Admin CLI [DAL-6445]
- 6. Fixed issue where kernel-level system logs were logged with UTC timestamps regardless of the locally-configured timezone [DAL-6408]
- 7. Fixed issue with sending UCS-2 formatted SMS messages with UTF-16 characters [DAL-6318]
- 8. Fixed issue preventing the Digi device from connecting to Digi Remote Manager over a HTTP proxy through an IPsec tunnel [DAL-6430]
- 9. Fixed permission issue with starting containers added via Digi Remote Manager [DAL-5844]
- 10. Fixed invalid format of SIM ICCID metric sent to Digi Remote Manager [DAL-6394]
- 11. Fixed issue where Wi-Fi client would not reconnect if the config settings were disabled and then re-enabled [DAL-6592]
- 12. Fixed issue where the **Reset modem** Surelink option would prevent the **SIM failover** Surelink option from taken affect if both Surelink settings were enabled (affects firmware versions 22.2.x through 22.5.x) [DAL-6343]

### SECURITY FIXES

The highest level vulnerability that has been fixed in this release is listed as a CVSS score of **9.8** *Critical* 

- 1. Update OpenSSL to version 3.0.5 and 1.1.1q (CVE 2022-2274, CVE-2022-2068)
- 2. Update Linux kernel to version 5.18

# **VERSION 22.5.50.62 (June 14, 2022)**

This is a *mandatory* release

Firmware	sha512sum	md5sum
ConnectEZ1-22.5.50.62.bin	d3b02d2e79a9954c077e1784e2c4a2afc44f633 cfeeb59f0395f2dc95391805fca28ab315ef52d1 b607c415e2a68942de7adde769ec8e5ac7ed5d 33b39d24c82	b2cbc7a102093f5c6afbd46f2c99e4ca
ConnectEZ2-22.5.50.62.bin	e38f89c31a24ba6fc5a30a23086d263f65d3f883 4e1e1615fa0461940c6866e22970a845f2260b4 bbdf4f5644bbf3bffb436fc276e3455e8c80a97d 3094deca7	03f89aa30242c95b6e45b175fff7f166
ConnectEZ4-22.5.50.62.bin	1bf52e4b1c6633b12dba19de2c545326ba5882 19bbaf99aa6ed4ddfcab4b438ccd954bf9e9360 98306234f917f930056dcfb13e9e97794c93fab7 d0e6ec4c537	270b746722aa2a552f8f1aa4801b277b

### **FEATURES**

- 1. Serial PPP dial-in mode for handling AT-based connection requests from a device connected to a serial port and providing IPv4 networking to the device [DALP-880]
- New Network → SCEP Client settings and underlying functionality to support connecting to additional SCEP servers, including Fortinet FortiAuthenticator, DigiCert, EJBCA, and Windows server [DALP-1007, DALP-1022]
- 3. New *show scep* Admin CLI command for showing the sync status, expiration dates, and additional details of any configured SCEP clients [DAL-6069]
- 4. Support for enabling add-on features from Digi Remote Manager [DALP-673]

- Remove time.accns.com from default list of NTP servers unless Central management → Service is set to aView at the time of updating firmware from version 22.2.9.85 or older [DAL-5543]
- 2. Added new *system.log.persistent\_path* configuration setting to specify where system logs are stored locally, which could be on the device or to an external storage (e.g. USB flash drive, SD card, etc) [DALP-946]
- New Services → Location → Destination servers → Behavior when fix is invalid setting to control the NMEA message content sent when there is no valid fix from any of the configured location sources [DAL-5984]
- 4. Improved the message shown on the **System → Configuration maintenance** page of the web UI if an error is encountered when restoring from a backup config file [DAL-6141]
- 5. Include the hostname of the device in the client .ovpn file listed on the **Status → OpenVPN → Servers** page in the web UI [DAL-6157]
- 6. Add support for the CP210X serial driver for connecting to Cisco USB console ports [DAL-6119]
- 7. Filter out non-Internet type APNs from our APN fallback list [DAL-6227]
- 8. Automatically power cycle the cellular modem in the event that a *modem reset* Surelink action fails [DAL-6268]
- 9. Enable Surelink *reset\_modem* action by default on cellular interfaces and set fail count to 3 [DAL-6275]
- 10. Add cellular APN and cellular connection duration as datapoints sent to DigiRM [DAL-5902]
- 11. Ensure modem is in enabled state before attempting to connect [DAL-6163]

12. Omit non-production modem firmware from the OTA query results in the **Status** → **Modems** page of the web UI [DAL-6301]

### **BUG FIXES**

The below bugs are all present on firmware versions 22.2.9.85 and older unless otherwise specified

- Fixed issue preventing Connect EZ 8 devices from being setup using the Digi Navigator tool [DAL-6117]
- 2. Fixed issue preventing Telit LE910 family of modems from registering after changing APNs without a reboot [DAL-5971, DAL-6016, DAL-5203]
- 3. Fixed issue preventing connectivity with fast.t-mobile.com T-Mobile SIMs when used with a Quectel modem. Use PDP context 1 for connections on Quectel modems with T-Mobile SIMs [DAL-6401, DAL-5930]
- 4. Fixed issue where modem-based Location source would sometimes not report properly due to an initialization timing error with the modem [DAL-6163]
- 5. Fixed issue where an IPsec tunnel fails to re-establish the tunnel if SAs are deleted after phase 1 re-authentication [DAL-4959]
- 6. Fixed issue where the connection to Digi Remote Manager would delay up to 15 minutes before refreshing to use the active main Internet connection in the event of a network failover or failback [DAL-6164]
- 7. Fixed issue where *OpenVPN → Advanced options → OpenVPN parameters* text box was limited to 64 characters when synced with Digi Remote Manager. The new limit is now 64,000 characters [DAL-6002]
- 8. Fixed issue preventing OpenVPN server from authenticating clients with an external LDAP/TACACS+/RADIUS server [DAL-6159]
- 9. Fixed broken **Go to Digi Remote Manager** link in the local web UI [DAL-6088]
- 10. Fixed issue preventing LDAP external authentication for SSH and Telnet session [DAL-6098]
- 11. Fixed typo in description of container delete CLI command [DAL-5956]
- 12. Fixed output of *show containers* Admin CLI command to list all containers on the filesystem, not just those linked to configuration settings [DAL-5958]
- 13. Fixed issue where the *show location* output in the Admin CLI could include an incorrect timestamp if the configured location server(s) had a non-UTC timezone set
- 14. Fixed issue preventing **Network** → **Interfaces** → **MAC address allowlist** from implicitly denying access to devices not in the allowlist [DAL-6001]
- 15. Fixed *Invalid lookup path for : network.interface* error when running *cfg.get("network.interface")* in the digidevice.config python module [DAL-6005]
- 16. Fixed issue where TAIP messages would have the incorrect timestamp if the timezones between the device and server were different [DAL-6335]

### **SECURITY FIXES**

The highest level vulnerability that has been fixed in this release is listed as a CVSS score of **9.8** *Critical* 

- 1. Update to OpenSSL 1.1.1o (CVE-2022-0778, CVE-2022-1292) [DAL-6035]
- 2. Update to linux kernel 5.17 [DAL-6081]
- 3. Patch for "dirty pipe" vulnerability in Linux kernel (CVE-2022-0847) [DAL-5981]
- 4. Update gcc to version 11.2 and binutils to version 2.37 (CVE-2019-15847, CWE-331, CVE-2018-12886, CWE-209, CVE-2002-2439, CWE-190) [DAL-5444]
- 5. Update openvpn to version 2.5.6 (CVE 2022-054) [DAL-6229]

# **VERSION 22.2.9.85 (March 3, 2022)**

This is a *mandatory* release

Firmware	sha512sum	md5sum
ConnectEZ1- 22.2.9.85.bin	9dd7241813f855270a53b079860 9a20fbefc24f9092efc81b0fc36427 add488bc2498a069ecb28a1b688 882c716bbe2b81c7d438cc47993 3c56347442f769cd5	a613480a1c66d12ecb103bb 6941b5f4a
ConnectEZ2- 22.2.9.85.bin	756f0a53e77e18a2cce24685a822 bd56e9fbf956c3d7bd88d4052c4f 501fb92201059b505681c13b1f73 062cd343e991a9a196bae5421c9 ca9a645b51f9a1a94	9c629a6f06b85a50385de06d 34cc240e
ConnectEZ4- 22.2.9.85.bin	b2c3e6dee453ef17072d65982d3a 18c9b72b0b9d4ff112046ff6a0499 e7b6ef4f0c3bcf90962ab8e6f0a61 e335b510422eaf2edb420fa01915 5a22bb11975585	67e282adccfef72fb68c666bd a690769

### **FEATURES**

1. Added new option under *System* → *Time* → *NTP* → *Use GNSS module* to enable the device to use its internal GNSS module as a date/time sync source [DAL-5760]

- 1. Update default Digi Remote Manager URL to edp12.devicecloud.com [DALP-972]
  - In firmware versions 22.2.9.85 and newer, the default central management server changes from my.devicecloud.com to edp12.devicecloud.com. This change enables more secure connection negotiation and enables support for device certificates. If your device connections are managed by a firewall, or your devices do not have direct access to public DNS servers, you may be required to make firewall changes to open connectivity to edp12.devicecloud.com, or to enable DNS.See <a href="https://www.digi.com/support/knowledge-base/firewall-concerns-for-outbound-edp-connections-to">https://www.digi.com/support/knowledge-base/firewall-concerns-for-outbound-edp-connections-to</a> for more information about device connectivity to Digi Remote manager.
- 2. Increased web UI upload limit to 512MB [DAL-5694]
- 3. Added new **Surelink Switch SIM** and **Switch SIM fail count** options to specify how many times the Surelink test must run and fail on a cellular modem before the device switches to the alternate SIM slot [DAL-5717]
- 4. Support for standard SCEP servers [DALP-821]
  - Previously the SCEP client only supported syncing with Fortigate SCEP servers. Two
    new settings were added under the Network → SCEP Client options to control the CA
    identity and HTTP path to the CA
- 5. Renamed *VPN* → *IPsec* → *Tunnels* → *Policies* → *Local network* setting to *Local traffic selector* along with a new *Dynamic* option which allows users to configure a local network by protocol and/or port instead of a network address range [DAL-5645]
- 6. Added new *VPN* → *IPsec* → *Advanced* → *Debug level* option to specify the logging verbosity of IPsec messages in the device system logs (default is debug logging is disabled) [DAL-5720]
- 7. Added new **Serial** → **Autoconnect** → **Socket ID string** option to send the configured text to the remote server(s) when a TCP socket connection is opened to the serial port [DAL-5700]
- 8. 1002-CM06/1003-CM07: Utilize T-Mobile carrier firmware if available for the cellular modem

- when using Sprint Curiosity SIMs [DAL-5466]
- 9. New cat Admin CLI command for displaying file contents [DAL-5853]
- 10. Update /etc/config/scep\_client/ directory to be read/write by admin users
- 11. Add ability for policy-based routes to override routing of packets through VPN tunnels, useful in the case where you only want packets from a certain source network to go through the tunnel [DAL-5317]

The below bugs are all present on firmware versions 21.11.60.63 and older unless otherwise specified

- 1. Fixed HFSC class hierarchy setup for QoS policies to limit bandwidth used for shared links [DAL-5814]
- 2. Fixed issue preventing scheduled maintenance window from updating the maintenance\_window datapoint in Digi Remote Manager if the maintenance window start time was between 00:00-00:59 [DAL-5765]
- 3. Fixed bug preventing MMS SMS messages from being received and parsed properly, preventing large out-of-band config changes from being received from central management portals [DAL-5538]
- 4. Fixed issue preventing transport-mode IPsec tunnels from initializing properly [DAL-5718]
- 5. Fixed issue where only the first policy would be setup on IKEv2 IPsec tunnels [DAL-5347]
- 6. Fixed issue preventing port forwarding firewall setups if the **Destination port(s)** setting was left blank [DAL-5860]
- 7. Fixed intermittent issue where the **show dhcp-leases** CLI output would sometimes not include all leases [DAL-5688]
- 8. Fixed system log errors when performing TACACS command authorization without having a TACACS server configured [DAL-5512]
- 9. Fixed interruption of active serial port connections when a user changes the serial port mode in the Digi device's configuration settings [DAL-5698]
- 10. Fixed issue where Surelink tests aren't reloaded if a user updates the network bridge or Wi-Fi configuration settings on the device [DAL-5406]
- 11. Prevent modbus setup issue by not allowing users to configure the device to use reserved address ranges [DAL-5905]
- 12. Fixed intermittent race condition in Surelink that could lead to a delay in setting up a WAN connection [DAL-5934]
- 13. Fixed issue with digidevice.sms python module processing empty SMS messages [DAL-5883]
- 14. Fixed issue preventing remote file system access to the /opt/ directory through Digi Remote Manager [DAL-5659]

### **SECURITY FIXES**

The highest level vulnerability that has been fixed in this release is listed as a Critical CVSS score of **10 Critical** 

- 1. Update python to version 3.10 [DAL-5499]
- 2. Update openssh to version 8.8p1 (CVE-2021-28041, CVE-2020-14145) [DAL-5451]
  - 1. This deprecates support for RSA signatures using the SHA-1 hash algorithm by default, which may prevent old machines from SSH-ing to the Digi device. Please ensure your SSH tool (TeraTerm, PuTTY, etc) is up to date. If you need to re-enable SHA-1 hash support, you can do so by adding the following lines to the Service → SSH → Custom configuration → Configuration file text box in the Digi device's configuration settings:

- 1. HostkeyAlgorithms +ssh-rsa
- 2. PubkeyAcceptedAlgorithms +ssh-rsa
- 3. Update dnsmasq to version 2.86 (CVE-2021-3448) [DAL-5331]
  - 1. Fix problem with DNS retries in 2.83/2.84
  - 2. Fix a problem, introduced in 2.83, which could see DNS replies being sent via the wrong socket. On machines running both IPv4 and IPv6 this could result in sporadic messages of the form "failed to send packet: Network is unreachable" and the lost of the query
- 4. Update to Linux kernel version 5.15 [DAL-5546]
- 5. Add new **Service** → **Web administration** → **Minimum TLS version** configuration setting to allow users to specify which TLS versions are allowed in the local web UI (default minimum is TLS 1.2) [DAL-5408]
- 6. Update busybox to version 1.34.0 [DAL-5631]
  - 1. CVE-2021-4237, CVE-2021-42374, CVE-2021-42375, CVE-2021-42376, CVE-2021-42377, CVE-2021-42378, CVE-2021-42379, CVE-2021-42380, CVE-2021-42381, CVE-2021-42382, CVE-2021-42383, CVE-2021-42384, CVE-2021-42385, CVE-2021-42386
- 7. Update dbus to version 1.13.20 [DAL-5459]
  - 1. CVE-2020-12049, CVE-2019-12749
- 8. Update grub to version 2.06 [CVE-2021-3418] (DAL-5456]
- 9. Update bzip2 to version 1.0.8 (CVE-2019-12900, CVE-2011-4089, CVE-2010-0405) [DAL-5446]
- 10. Update procps to version 3.3.15 [DAL-5433]
  - 1. CVE-2018-1124, CVE-2018-1123, CVE-2018-1126, CVE-2018-1125
- 11. Hardened openssl build to include secure compilation flags
- 12. Update sqlite to version 3.37.2 [DAL-5669]

# **VERSION 21.11.60.65 (January 14, 2022)**

This is a **recommended** release

Firmware	sha512sum	md5sum
ConnectEZ1- 21.11.60.63.bin	77e3498b9eae2b45c5d2e81d4aa 7a60e41d4dd5f1392bbe823475c a09c51f0d854dbaac205b2a23796 d9d3ad63a7ab2aa6747158131ef b9bb07b84318517ab37	3a2bb459e216f723e389d00c 657ff7c5
ConnectEZ2- 21.11.60.63.bin	29f2983b2e4225b121c95331758 231bb70749c2536be41376cf8b41 10771ce9a28d8cf3a005d3f746c0 5dc6a53ec28aaada037ba63e053 49ab8fb274c41b421a	d1a3cde5302237a47d95550 d1d503b0c
ConnectEZ4- 21.11.60.63.bin	a213a8a1fde092e2ce842c662adf df922fcf4f683a5e8ce152654a76c 923226a20e9cd96fb30401f04f22 b7c3dec29927b41b96b749e67c9 1380fb1a26a89c9f	4829ce82228e0813e648404 54fc1f8e1

### **BUG FIXES**

- 1. Fixed bug where only the first policy would be applied if an IPsec IKEv2 tunnel was configured with multiple remote networks (bug present on firmware version 21.11.60.63 through 21.1.39.67) [DAL-5347]
- 2. Fixed bug preventing access to the local web UI and connectivity to Digi Remote Manager if

the ConnectEZ was reset back to default settings (bug present on firmware version 21.11.60.63) [DAL-5739]

# **VERSION 21.11.60.63 (December 8, 2021)**

This is a *mandatory* release

Firmware	sha512sum	md5sum		
ConnectEZ1- 21.11.60.63.bin	fedd384edbf3700017b6b5b628c4 3d11c4193c4f3fbcc3b39a234bda 0b9613c5a58f2eee5efcde073ca0 de19c9a4d3249c77375f2f345290 290006587899dd66	0dc75be78f62820c70999d6f 19bca169		
ConnectEZ2- 21.11.60.63.bin	09ffbc1826572a5dac45c85f3fba6 7e69c6daec9056d6c4d8b88b1af6 80cdfeeb5636fdb084bfa3d5b065 c496cdb7963983d0df77fc8f42b4f 153e36957c6240	371425816d304d226822ab9 86360acc8		
ConnectEZ4- 21.11.60.63.bin	40e9c3f3a40108e2df8c9d30972c 0be263286855258d2ddd1a71d6d 0a00dcf610d15f4c142c7443e9e2 1a14743ffa49903cf08ca92a1e71b 6f9590987ef2ec67	65917cda49e97eb2f9b32e5e 0de6cd03		

### **FEATURES**

- New System maintenance → Device firmware update config option to allow the device to automatically update to new firmware when available (disabled by default) [DALP-630]
- 2. TACACS+ accounting and authorization for Admin CLI interactions [DALP-633]
  - Includes two new configuration settings under the Authentication → TACACS+
    configuration settings for enabling TACACS command account and/or authorization
- 3. Add new Authentication → Users → Username alias option for providing an alternate username that can accommodate characters not typically allowed in a username [DALP-705]
- 4. PKI certificate-based authentication for WPA2/WPA3 Enterprise Wi-Fi client connections, including options for user-provided certificates or SCEP client integration for automatic certificate generation [DALP-828 & DALP-794]

- Improved Wi-Fi scanning tool on the Status → Wi-Fi → Management page in the web UI to
  automatically setup the underlying basic client-mode settings so the device can scan for
  nearby APs without requiring the user to first configure the client-mode settings [DALP-802]
- 2. New **show surelink** Admin CLI command for displaying details on the Surelink test(s) configured for a network interface or VPN tunnel [DALP-621]
- Add new option under Location → Destinations for specifying the talker ID used in NMEA message strings [DAL-5038]
- 4. 1002-CMM1 CORE modems: Use CID context 3 for any type of Verizon SIM when used with a ME910c1-WW modem [DAL-5428]
- 5. Include the mode indicator field in NMEA messages constructed when a GPS fix isn't obtained [DAL-5464]
- 6. Add support for auto-completing a parameter or AT command provided to the **xbee set get|execute** Admin CLI commands [DAL-5196]
- 7. Change default IPsec IKE DH group to 14 for enhanced compatibility with industry standard settings [DAL-5344]

- 8. Disable serial history in remote access mode by default [DAL-5494]
- 9. Add new settings under cellular Surelink options to have the device reset the cellular modem if a specified number of Surelink tests fail [DAL-5441 & DAL-5485]
- 10. Add **datapro** APN to fallback list to be utilized with Airmob SIM cards [DAL-5548]
- 11. New **show containers** Admin CLI command for listing details about configured containers [DAL-5380]
- 12. Include SIM ICCID and phone number in the query\_state response sent to Digi Remote Manager [DAL-5632]
- 13. Specify string encoding as UTF-8 in communication with DigiRM for compatibility with extended charactersets [DAL-5505]

The below bugs are all present on firmware versions 21.8.24.139 and older unless otherwise specified

- 1. Fixed issue preventing IPsec tunnels from being setup in Transport mode [DAL-5490]
- 2. 1002-CM04/1002-CME4 CORE modems: Fixed issue where cellular modem firmware updates would not be applied to Telit LE910-family of modules unless the firmware file included a carrier name in the filename [DAL-5616]
- 3. 1003-CM07 CORE modem: Fixed issue preventing multi-carrier firmware updates on Sierra EM7411 modems [DAL-5473]
- 4. Fixed issue preventing **on boot** SIM preference schedule from taking effect (bug present on firmware versions 21.8.x and 21.5.x) [DAL-5547]
- 5. Fixed issue preventing internal firewall from functioning properly if a port forwarding rule was configured with the protocol type set to **other** (bug present on 21.8.x firmware) [DAL-5501]
- 6. Fixed issue preventing IPsec tunnels from being setup properly if the tunnel name was longer than 9 characters [DAL-5139]
- 7. Fixed formatting of cellular-related health metrics so they can be properly displayed under the Settings → Status → Cellular section in Digi Remote Manager [DALP-768]
- 8. Fixed error in system log when attempting to parse an empty config file [DAL-5402]
- 9. Fixed issue causing potential multi-minute delays in the *show modem name XX* Admin CLI command [DAL-5297]
- 10. Fixed issue where Surelink ping tests would utilize the same source IP address if coming from different network interfaces assigned to the same physical device/port [DAL-5478]
- 11. Fixed issue where Surelink **reboot** action would not be taken if the Surelink **restart interface** action was also enabled [DAL-5485]
- 12. Fixed issue preventing the creation of config elements with dynamic array names via the local web API [DAL-5481]
- 13. Fixed issue preventing installation of sqlite3 python package via pip [DAL-5611]
- 14. Fixed issue preventing multiple config changes from being applied in a python script using the digidevice.config module [DAL-5192]

### **SECURITY FIXES**

The highest level vulnerability that has been fixed in this release is listed as a Critical CVSS score of **9.8 Critical** 

- 1. Update to python version 3.6.15 [DAL-3190]
- 2. Update stunnel to version 5.60 [DAL-5291]
- 3. Update busybox to version 1.33.1 [DAL-5290]
- 4. Update to Linux kernel version 5.14 [DAL-5360]

- 5. Update OpenSSL to version 1.1.1 [DAL-5242]
- 6. Fixed issue where the TACACS shared secret was included in the system logs [DAL-5470]
- 7. Update libunbound to version 1.13.2 [DAL-5420]
- 8. Update libidn2 to version 2.3.2 [DAL-5439]
- 9. Update musly to version 1.2.2 [DAL-5452]
- 10. Update rsync to version 3.2.3 [DAL-5431]
- 11. Update OpenVPN to version 2.5.4 [DAL-5435]

# **VERSION 21.8.24.139 (November 12, 2021)**

This is a **mandatory** release

### Connect EZ Mini

SHA-1: 069160b3c5d47ebfbbbb964da96b87c820ea491c

SHA-512:

f9d044c2393f6b8c99deea2e7cb141f45fc4f94c59ff144370cdea60a14ab8e72e8de972d6a109001ae1a8ffcde703895a4456115513ef7981f4eb5c7fdfa9f4

### Connect EZ 2

SHA-1: 408f3b1e3209bcf0cf2992470c7d69737b6b99d1

SHA-512:

432bf292165f635fbbe38e08a90e7c1a56b6a48a0738c86285e4318ee5bee4ad1e0e7ba1 3c9da022e618bf08fd5001f7a195610a1bfb182ab878a8b89197443d

### Connect EZ 4 / Connect EZ 4i

SHA-1: 9434c8e2efe91d71c214c8eb5347ce730260213f

SHA-512:

264ddb85165f712be099fc0b4f3561ba00f1088a925d8298f143389095461a342c03e2d7e a80f14556ab8eb27804760d7d9c0a772d8920f1703f3e36255f557a

### **FEATURES**

- 1. LXC container support for running localized containers on the device [DALP-243]
  - 1. New **System → Containers** configuration settings for provisioning containers, providing virtual networking, and serial port access from the container
  - 2. *lxc* commands available in the shell console for managing/accessing/monitoring containers on the device
  - 3. Containers are based off the host DAL device's system. Packages installed to the container must be built for the CPU architecture designed
- 2. L2TPv3 static/unmanaged VPN tunneling [DAL-5137]
  - 1. VPN -> L2TPv3 ethernet configuration setting
  - 2. New Status -> VPN -> L2TPv3 Ethernet web UI page
- 3. 802.1x port-based network access control, configurable per network interface [DAL-5080]
- New Services → SSH → Custom configuration settings for overriding or editing the SSH server options
- New Monitoring → Device event logs options for sending local device event logs to Digi Remote Manager [DALP-808]

- Event logs are controlled under the System → Log → Event categories configuration settings
- 6. New *VPN → IPsec → Tunnels → IKE → IKE fragmentation* option to enable, disable, or force IPsec IKE fragmentation [DAL-4933]
- New MAC address allowlist/denylist options to allow/deny packets based off of a range of source MAC addresses [DALP-799]
- 8. New **system time** CLI command for manually setting the local date and time [DALP-520]
- 9. New **monitoring metrics upload** CLI command for sending on-demand health metrics to Digi Remote Manager [DALP-727]
- New system script start CLI command and Status → Scripts page in the web UI for manually starting custom scripts configured under the System → Scheduled tasks → Custom scripts settings with a Run mode of manual [DALP-741]
- 11. New **system find-me on|off** CLI command and **Status → Find Me** button in the web UI for flashing cellular-related LEDs to help locate the device onsite [DAL-5142]
- 12. New *Network* → *Bridge* → *switchport* bridge type configuration settings for enhanced VLAN capabilities [DAL-5220]
  - 1. trunked vs untrunked ports
  - 2. virtual switch setups
  - 3. VLAN layer 2 networking

- Added new **show l2tpeth** CLI command for viewing the status of any configured L2TPv3 tunnels [DAL-5220]
- 2. Update python pip to version 21.2.4 [DAL-5068]
- 3. Shortened fallback APN list by removing wildcard entries [DAL-5012]
- 4. 3G sunset support for EU carriers [DAL-5041]
- 5. Update messaging included in keepalive packets sent to Digi Remote Manager to prevent multi-second delays in keepalive responses [DALP-832]
- 6. Add **datapoint.upload\_multiple** function to digidevice python module for uploading multiple datapoints to DigiRM at once [DALP-857]
- 7. Add **uptime** field to **show cloud** CLI output to indicate how long the device has been connected to Digi Remote Manager [DAL-1083]
- 8. Update **system support-report** CLI command to automatically store the support report in /var/log/ unless a path is specified [DAL-5027]
- 9. **system support-report** CLI command outputs helpful information for SCP-ing the file from the device to a remote destination [DAL-5027]
- 10. New **clear dhcp-lease** CLI command for removing all dynamic DHCP leases or certain DHCP leases based on MAC address or IP address [DAL-5127]
- 11. New **speedtest** CLI command for performing on-demand iPerf or nuttcp speedtests [DAL-5040]
- 12. Require local users to be assigned to a group [DAL-5060]
- 13. Add support for configuring multiple destination networks/interfaces for Multicast routes [DALP-853]
- 14. New **Network** → **Advanced** → **Sequential DHCP address allocation** configuration setting for controlling if DHCP addresses are assigned sequentially or randomly (disabled by default) [DAL-5136]
- 15. Persistent local date/time across reboots once a successful NTP sync occurs [DALP-806]
- 16. New System → Scheduled tasks → System maintenance → Maintnance window trigger

configuration settings for controlling when/if a device tells Digi Remote Manager it is in a maintenance window and if updates should be pushed to the device [DAL-5010] Available maintenance window triggers are:

- 1. Specified network interface is up
- 2. Python API call
- 3. Specific time window in the day
- 17. Read/write control to the /opt/ and /etc/config/analyzer/ directories through DigiRM and the local web UI [DAL-5117]
- 18. New options for setting up a custom default config file [DAL-4978]
  - 1. **system backup** CLI commands for generating a custom default config file based on the active config settings on the device
  - System → File System page in the web UI for loading a configuration backup file as the custom default config
  - 3. *Files → Persistent files* folder accessible through Digi Remote Manager where users can upload a config backup, naming it custom-default-config.bin
- 19. Add option to clear a custom default config by performing a double erase sequence [DAL-5017]
- 20. Updated CLI login helptext to include common tool-tips [DAL-5157]
- 21. Replace the cellular modem manufacturer name with the CORE modem model name in the CLI/webUI/metrics details [DAL-5171]
- 22. Ensure scheduled reboots with the **reboot\_managed** command cause graceful shutdown of services on the device before rebooting [DAL-5150]

### **BUG FIXES**

The below bugs are all present on firmware versions 21.5.56.108 and older unless otherwise specified

- 1. Fixed issue where Digi Remote Manager would remediate a DAL device every time it's scanned due to the local user passwords being hashed [DALP-834]
- 2. Fixed issue where the **system restore** CLI command could default the device if the config backup file was store in the /etc/config/ directory [DAL-5116]
- 3. Fixed the local web API to allow values with spaces [DAL-5039]
- 4. Fixed the local web API to allow array configuration settings [DAL-4895]
- 5. Fixed mdns service where it would occasionally crash [DAL-4663]
- 6. Fixed issue preventing **modem pin status** from returning valid results [DAL-5056]
- 7. Fixed bug with installing certain python modules using pip [DAL-5068]
- 8. Set default user-base directory to /etc/config/scripts/ so python pip can install module dependencies to a writeable location when pip install --user <module\_name> is invoked [DAL-5068]
- 9. Prevent serial connection crashes when a incoming serial socket connection is sending so much data that the buffer fills up the system memory

### **SECURITY FIXES**

- 1. Add STS header in HTTPS web UI [DAL-4991]
- 2. Update libcurl to version 7.77.0 (CVE-2021-22897, CVE-2021-22898, CVE-2021-22901)
- 3. Update to linux kernel version 5.12

Connect EZ Mini

SHA-1:

748c4f92df2c1ba0c3918ceb792d35229720fd2b

SHA-512:

 $eedc041aac7d5cf531e14fe3ca71bbd28545484c7b5f7ecddb901dce5c392781a88b97808f87\\b2044fb968435247ddb74ddc02bb8501ae1c4597bbbf6dacd499$ 

### Connect EZ 2

SHA-1:

7822e097f4cb3fc44f561c2360995cebbdf93db5

SHA-512:

f805990877e252806f7a4c91eb9c737fc54601d7f71496e56a7602e045b3f21a547d127d7c111 a3d772a4021894176c324be1f0b3509054aa11a3b4a05a97570

# Connect EZ 4 / Connect EZ 4i

SHA-1:

60571448d09cfac38337df7093390b135a89f649

SHA-512:

08aa6139a139485ef406acf8bcfd82d2f6ca8423b7c97688c437345dc9a499c62b907435d8cd2 e0172b3f37be1b2f6ea15f09a772aec6485c463703e05087f9f

This is the initial release of the Connect EZ family of products.

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None

# **ENHANCEMENTS**

None

### **BUG FIXES**

None

### **SECURITY FIXES**

None