

TOC

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22.8.33.50 - June 2024, Feature

Release category: **Mandatory**

New feature

1. Added configuration options for running a PPPoE server in IP passthrough mode [DALP-1045]
2. TX: Support for DMVPM has been added.

Enhancements

1. Update firmware OTA downloads to utilize the Digi Remote Manager firmware repository (firmware.devicecloud.com instead of firmware.accns.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]
5. 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 Digi Remote Manager [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]

TX54/TX64: On a TX54 or TX64 that has the ignition sense line connected and is ON, the device will reboot.

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]
13. 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]
18. Add disclaimer to **Network → SD-WAN → WAN bonding** settings to note that a DigiRM license is required
19. Update WAN Bonding client to version 2022-04071718
20. Support for the Telit LN920 cellular modem [DAL-5863]
21. The configuration for the speed test and firmware servers has been added to the Digi Remote Manager configuration.
22. A **network** configuration parameter has been added to **BGP** to allow the user to configure which networks should be advertised.
23. A configuration option has been added to enable and disable aView style SMS control messages if Digi Remote Manager is being used
24. An issue when attempting to download the OpenVPN client configuration template file when the device has a default system name has been resolved. [DAL-6561]
25. **EX50:** Added options under **Network → Modems → Access technology** to set the modem to 5G-only (including setting to 5G SA-only, NSA-only, or both NSA/SA-modes) [DAL-6395]

26. TX64/TX64 RAIL: A new system power profile configuration setting has been added for the TX64 and TX64 Rail platforms which can be used to manage the CPU frequency and power usage of the device. There are four levels

- Auto
- Manual
- Power Save
- Performance

The default setting is Performance.

27. TX64/TX64 RAIL: A new system power leds_enabled configuration setting has been added for the TX64 and TX64 Rail platforms. The LEDs can be disabled in order to reduce power consumption. When disabled, the WWAN1 Signal LED will flash every 15 seconds to indicate the device is powered up.

Bug fixes

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 default route 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]
13. Fixed issue with downloading client ovpn file from the local web UI [DAL-6561]

14. Fixed issue where the connection to Digi Remote Manager would fail if WAN Bonding was enabled [DAL-6386]
15. Fixed issue where the connection to DigiRM would fail if WAN Bonding was enabled [DAL-6386]
16. EX50: Fix issue with certain AT&T SIMs connecting with EM9191 modems by ensuring the APN is written to the SIM before connecting
17. EX50: Fixed connectivity issues where EM9191 modems with a Vodafone SIM would switch to Verizon firmware instead of Generic firmware
18. TX54/TX64: An issue with the TX54 and TX64 that prevented it from switching back from SIM2 to SIM1 has been resolved. [DAL-5945]
19. TX54/TX64: An issue that prevent TX54 and TX64 devices using the LM940 cellular module from connecting to the Verizon network has been resolved. [DAL-6186]
20. TX54/TX64: An issue with the second cellular module on the TX54 and TX64 taking a long time to connect during boot up has been resolved. [DAL-6321]
21. TX64 5G and RAIL: Connectivity issues on a TX64 5G and TX64 Rail platforms with a Vodafone SIM where the device would switch to using Verizon firmware instead of Generic firmware has been resolved. [DAL-6603]
22. TX64 RAIL: An issue with the TX64 Rail platform with Ethernet interfaces continually going up and down when configured in 1Gbps, full duplex mode has been resolved. [DAL-6472]

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
2. LR54/TX54/TX64: The OpenSSL package has been updated to 3.0.5 on the TX64 platforms and to 1.1.1q on the TX54 and LR54 platforms. [DAL-6442, DAL-6470]

CVE 2022-2274 CVSS Score: 9.8 Critical CVSS:3.1/AV:N/AC:L/PR:N/UI:N/S:U/C:H/I:H/A:H

CVE-2022-2068 CVSS Score: 9.8 Critical CVSS:3.1/AV:N/AC:L/PR:N/UI:N/S:U/C:H/I:H/A:H

DAL OS firmware update guidelines

Digi recommends that users of DAL OS devices update firmware in Digi Remote Manager.

 TIP If you are updating many routers, see [Best practice | Update the firmware on multiple routers using a template](#).

It is also recommended that you review the following:

- Release information
- [What's new](#) and [release notes](#) for the current firmware version running on your devices, as well as any newer ones as this information may affect your update plan.

Known issues

- **TX54 product models**

The Serial status and statistics for the TX54 are incorrect on the Web UI and CLI (DAL-5763).

- **Bridging traffic from devices connected on an Ethernet port or Wi-Fi AP**

Due to the changes in the firewall, it is currently not possible to bridge traffic from devices connected on an Ethernet port or Wi-Fi AP in a bridged interface to a remote IP device via a gateway connected to an Ethernet port in the same bridged interface [DAL-9799].

- **IPsec using Default Router as the Local Endpoint**

There is an issue with IPsec where the tunnel will not come up when the default route is used as the Local Endpoint and the tunnel is not acting as the initiator. Specifying the interface type for the local endpoint should resolve the issue. [DAL-11361].

- **SSH / SCP login slow when FIPS mode is enabled**

Logging into SSH or SCP when FIPS mode is enabled can take more than 20 seconds. [DAL-12606].

Primary Responder mode considerations

DAL OS 23.9 and later supports a **PR¹** mode that can be enabled on any device. When enabled, the device acts as a Primary Responder PR device with a security-hardened, feature-restricted firmware targeted to comply with AT&T FirstNet® and Verizon ResponseVerify™ security requirements.

Features not available	Features available but disabled by default	Features enabled when PR mode is enabled
Telnet	SSH*	FIPS mode
Raw TCP listeners for serial ports	Wi-Fi pre-configured access points	
Wi-Fi WPA1 encryption	Internal serial console port	
Backup configuration file restore	USB ports	

*For DAL OS 25.8 feature release and newer, Primary Responder mode now requires key-based SSH authorization.

Additional considerations

- Users are prompted to enable two-factor authentication.
- A notification will appear in both the Web UI and CLI if the DAL device has Primary Responder mode enabled, but there are local users who do not have two-factor authentication enabled.

¹Primary responder

- The system `custom-default-config` CLI command available in release 24.12 cannot be run in Primary Responder mode.

Devices that use DAL OS firmware

Changes to DAL OS firmware for supported Cellular business unit devices are documented in this documentation portal and in the corresponding device user guides:

Console server	Enterprise	Industrial	IoT gateway and cellular router	Transportation
Connect IT Mini	EX12	IX10	IX15	TX40
Connect IT 4	EX15	IX20		TX54
	EX50	IX25		TX64
		IX30		TX64 RAIL
		IX40		

Step updates

If your devices are running a firmware version **earlier than 24.6.17.54** and you want to update them to version **24.9.79.151** or newer:

1. Do a step update to version **24.6.17.69**.
2. Proceed with updating to newer versions.

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Glossary

#

2FA

Two Factor Authentication

A

AI

Artificial Intelligence

API

Application Programming Interface

AT

Attention

C

CA

Carrier Aggregation

CLI

Command Line Interface

CMP

Connectivity Management Portal

CSV

Comma Separated Values

CTS

Clear to Send

D

DAL OS

Digi Accelerated Linux Operating System

DANI

Digi Artificial Network Intelligence

DCD

Data Carrier Detect

DL

Download

DRM

Digi Remote Manager

DSR

Data Set Ready

DSSS

Dual SIM Single Standby

E

eID

Embedded Identity Document

eIM

eSIM IoT Remote Manager

eMBB

Enhanced Mobile Broadband

ERC/CIP

Ethereum Request for Comments/Cardano Improvement Proposal

eSIM

Embedded Subscriber Identity Module

eUICC

Embedded Universal Integrated Circuit Card

EX

Enterprise

F

FOTA

Firmware Over-the-Air

G

GPS

Global Positioning System

GSMA

Global System for Mobile Communications Association

H

HTTPS

Hypertext Transfer Protocol Secure

I

IMSI

International Mobile Subscriber Identity

IP

Internet Protocol

IPA

IoT Profile Assistant

IX

Industrial

J

JSON

JavaScript Object Notation

L

LAN

Local Area Network

LPA

Local Profile Assistant

LTS

Long Term Support

M

MBIM

Mobile Broadband Interface Model

MCP

Model Context Protocol

mDNS

Multicast Domain Name System

MIoT

Massive Internet of Things

MNO

Mobile Network Operator

MSP

Managed Service Provider

MVNO

Mobile Virtual Network Operator

N

NMEA

National Marine Electronics Association

NSA

Non-Standalone

O

OTA

Over the Air

P

PLC

Programmable Logic Controller

PLMN ID

Public Land Mobile Network Identifier

PR

Primary responder

Q

QoS

Quality of Service

R

RSP

Remote SIM Provisioning

RTU

Remote Terminal Unit

S

SA

Standalone

SGP

Standardized Global Platform (for Secure Remote SIM Provisioning)

SIM

Subscriber Identity Module

SPN

Service Provider Name

SSH

Secure Shell or Secure Socket Shell

SSO

Single Sign On

T

TAIP

Trimble ASCII Interface Protocol

TCP

Transmission Control Protocol

TX

Transportation

U

UI

User Interface

UL

Upload

URL

Uniform Resource Locator

URLLC

Ultra-Reliable Low Latency Communication

V

VLAN

Virtual Local Area Network

VR

Virtual Reality

W

WAN

Wide Area Network

WLAN

Wide Local Area Network

WWAN

Wireless Wide Area Network