MF350BV, VF350BM, MF200BM, and VF200BV Software Release Document Release Notes 3.0.0.1

Version P

Revision History

Date	Version	Description	Author
7/8/2019	C	Software Release 1.2.x.x	Steve Noel
11/13/2019	D	Software Release 1.2.1.11	Steve Noel
2/3/2020	E	Software Release 2.0.0.2	Steve Noel
5/27/2020	F	Software Release 2.1.0.1	Steve Noel
10/20/20	G	Software Release 2.2.0.0	Steve Noel
5/10/2021	H	ThalesLINK Software Release 2.2.1.4	Steve Noel
1/18/2022	J	ThalesLINK Software Release 2.2.2.0	Steve Noel/Mark Hafner
6/13/2022	K	ThalesLINK Software Release 2.3.0.0	Steve Noel
9/9/2022	L	ThalesLINK Software Release 2.4.0.0	Steve Noel/Lena Campbell
3/22/2023	M	ThalesLINK Software Release 2.5.0.0	Steve Noel/Lena Campbell
4/30/24	N	ThalesLINK Software Release 3.0.0.0	Lena Campbell
5/22/24	P	ThalesLINK Software Release 3.0.0.1	Lena Wiger

Table of Contents

1. Introduction

1.1 Disclaimer of Warranty

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1.2 Purpose

The purpose of the Release Notes Document is to communicate major new features and changes in this release. It also documents known problems and workarounds.

1.3 Scope

This document describes the *MissionLINK 200 & 700 and VesseLINK 200 & 700, Release 3.0.0.0*

1.4 Definitions, Acronyms, and Abbreviations

API – Application Programming Interface

ARM - Name given to our onboard processor

BCX – Broadband Core Transceiver

BDU – Below Deck Unit

DHCP – Dynamic Host Configuration Protocol

DTMF – Dual Tone Multi Frequency

HGA – High Gain Antenna

IP – Internet Protocol (in our case, referencing IPv4 or Internet Protocol version 4)

IMT® - Iridium Messaging Transport®

GLONASS – GLObal NAvigation Satellite System

GNSS – Global Navigation Satellite System

GPS – Global Positioning Satellite

GRE - Generic Routing Encapsulation

LAN – Local Area Network

LGA – Low Gain Antenna

POTS – Plain Old Telephone System

PTT – Push to Talk

SDF – Secondary Data Flow

WAN – Wide Area Network

1.5 References

DFARS 227.7202-1(a)

227.7202-3(a) (1995)

DFARS 252.227-7013(c)(1)(ii) (Oct 1988),

FAR 12.212(a) (1995)

FAR 52.227-19, or FAR 52.227-14]

1.6 Related Documents

2. About This Release

3.0.0.1 includes two large features, a few small features and some improvements to current operation. One of the large features is the implementation of Iridium's new IoT based messaging, Iridium Messaging Transport®. This feature allows users to send and receive queued data via subscribed Topics. The second is a feature allowing the administrator to configure additional users with specific permissions. Small features include an adjustable SIP domain, and dynamic DNS servers. Additional fixes and improvements are reporting the correct MTU size, backing up and re-enforcing CN configurations, displaying API errors on the Management portal, and a properly functioning Wi-Fi Whitelist.

3. Compatible Products

This product has been tested on the following platforms or with the following products or platforms:

- MissionLINK 350/700 - MF350BV
- VesseLINK 350/700 - VF350BM

- MissionLINK 200 – MF200BV
- VesseLINK 200 – VF200BM

4. Known Issues, Workarounds and Limitations

Defects

Short leakage of data:

When Data disabled, the configuration of WAN priority, SAT secondary, and enabling data may allow data from a connected device to pass through the satellite until the WAN connection establishes.

Known workarounds

Handset:

Static Addressing not Available on Surelink (IC-2584): SureLINK supports only dynamic addressing. SureLINK will not operate unless DHCP is turned on in the BDU. However, with the Introduction of ADB in this release, comes the ability to push shell scripts onto the SureLINK Handset as well as modify the IP address of the SureLINK using the "ip addr" commands. For static addressing on the SureLINK handset, customers will be directed to contact Thales for a patch.

4.1 Limitations

- None

5. Software Executable File

5.1 File Nomenclature

thaleslink_3.0.0.1.swu

5.2 File Location

Internal Location: https://tdsi/artifactory/iridium-certus/releases/release/3.0.0/3.0.0.1/thaleslink_3.0.0.1.swu

Public Location: Released on the Thales Customer Support portal for signed resellers.

5.3 File Format

Encrypted compressed archive file

5.4 File Checksum/Validation

SHA-1: ba3702f46532e3cebb7f200833d7a53e61308539

6. Target Device

This software runs on the processors in the MF350BV, VF350BM, MF200BV, and VF200BM satellite systems. See the User's manual for installation procedures.

7. Release Materials

7.1 Programing Instructions

Programming follows the procedures in the User's Guide, 84468, in section 5 -1. Those instructions are copied here:

1. With PC or Mobile Device connect to "ThalesLINK" on Wi-Fi or via Ethernet (RJ-45) port.

2. Open a web browser and type: http://portal.thaleslink (do not type .com or any other extension)

3. Once prompted enter Username and Password.

4. Navigate to the SYSTEM→ Firmware

5. Select CHOOSE FILE.

6. Go to File Input and select the Browse button.

7. Navigate to location of downloaded file. This file should have the firmware version and ".swu" as the file extension

- Example: thaleslink_3.0.0.1.swu

8. Select the "SELECT" button

9. After file has been selected return to the Firmware page.

10. Select "UPLOAD FIRMWARE" button. This may take a few seconds as a progress bar moves across the page

11. Once staged the Firmware page will display "UPDATE STAGED" (At this point user will be able to see Current and New Versions side by side on the Firmware page)

12. Select " RUN"

13. Once YES, UPDATE is selected, the process to Update Firmware has begun and will take approximately 10 to 15 minutes to complete. *DO NOT REMOVE POWER DURING THIS PHASE*

14. Once completed and the system reboots, wait for all the Status LEDs to go Solid Green and/or Blue. This may take a couple minutes.

15. Verify Firmware Update by connecting to "ThalesLINK" on Wi-Fi or Ethernet port.

16. Open a web browser and type: http://portal.thaleslink (do not type .com or any other extension).

17. Once prompted enter the admin Password (this will not change from before the firmware update).

18. Navigate to the SYSTEM→ Firmware to view updates. (Software versions can also be found in the ABOUT menu item.)

7.2 Physical Media Materials

None

7.3 Performing the Upgrade

See Section 7.1

7.3.1 Security, privacy, or safety precautions relevant to the installation.

None

7.3.2 Identification of other changes that have to be installed for this version to be used.

None

7.3.3 Instructions for installing the software version.

See Section 7.1

7.3.4 Procedures for determining whether the version has been installed properly.

See Section 7.1

7.3.5 A point of contact to be consulted if there are problems or questions with the installation.

If there are problems or questions with the installation, contact Thales Customer Service: Customer.Service@thalesdsi.com.

7.4 Release Contents

The following fixes are delivered with this software.

Defects and features added from 3.0.0.0:

Defects Fixed:

IC-3061**:** Wrong MTU size reported - On the default data route, the maximum MTU size, based on ICMP MTU size, is 1468. Secondary Data flows can handle a maximum MTU size of 1472 bytes based on ICMP MTU size. DHCP now reports the correct size to connected devices.

IC-3004: Changing routing for SDFs may cycle disabled LAN ports – Due to port DHCP refresh, mapping and SDF to a port caused the port to be enabled. This release now checks if ports are disabled before refresh.

Product Improvement: CN repeatedly runs BIT tests – If the CN had a BIT failure, it would repeatedly run BIT tests. This release prevents this.

IC-3070: CN Configuration loss resets WiFi Settings – After CN Configuration corruption, some settings were lost. These settings are now being re-enforced.

IC-3058: WiFi Device whitelist does not work with ESP32 – This has been fixed.

Product Improvement: Phone Lines not reset after factory reset – Phone lines are now reset to factory default after a factory reset.

Feature Additions:

IMT: This feature implements Iridium's new IoT messaging service, Iridium Messaging Transport. This service allows users to send and receive data over the Iridium Network via topic subscriptions on the SIM card. Key advantages of using this service are that it is queue-based and does not require a persistent data connection. The implementation in this release currently supports socket receiving/delivering and API message sending. Users can configure delivery endpoints, receiving endpoints, and message handling (binary and encodable).

Configurable Users: The administrators now have the ability to create up to two configurable users. These users have adjustable scope and are able to make configuration changes based on what permissions the administrators give them. These users have their own username and password and are supported by the API and the Management Portal.

Adjustable SIP Domain: The user is now able to change the name of the ThalesLINK's SIP domain. It can be changed to any valid domain name, or to the IP address of the BDU.

Adjustable DNS Entries: Additional domain names can be added to the ThalesLINK's DNS server.

Optimizations: This release includes optimizations to both the startup process and the management portal. The startup time of the BDU was reduced by optimizing the order of the processes and giving the API priority. The Management Portal now updates on demand by checking the local version versus the system version. Status queries occur every 7 seconds rather than 15 once the portal is "in sync" with the BDU. The Portal now reports more detailed error messages when configuration changes fail.

Internal: This release includes some internal features to aid in debugging. The Instavoip Module will not reboot until all ssh users are logged out and there is a new debug API endpoint that reformats the CN directly. There are also some cidcurl additions to make finding flask routes easier.

Manual Updates: All manuals found on the help page have been updated to include new terminal features.

Open Issues:

See section 4 Known Issues, Workarounds and Limitations

Revision History

Rev.	Author	Change Description
1	R. Kaiser S. Noel P. Ross M. Blanchard L. Wang	Initial release. Combined Release Notes and Document into one Release Doc; From earlier Release Doc, removed all sections except Software Executable File, Target Device, Upgrade Instructions, and Programing Instruction. This obsoletes OT45-002B Release Notes and OT45-002A Release Document. Updated based upon feedback from Jennifer Randall to better serve external customer needs.