

Document Name	Ver.	Rev. Date	Doc. No.
MF350BV, VF350BM, MF200BV and VF200BM Document	J	<1/18/22>	6218143

ThalesLINK Software Release 2.2.2.0

This release enhances on-air performance and current router functions.

Feature Additions:

Link Stability Enhancement:

Antenna software version 104: Optimized tracking algorithm on the 700 series antennas.

Modem software version 2.6.6: Optimized pointing algorithm on the 700 series antennas.

Maintainability Enhancement for Better Control of the Below Deck Unit:

- Allow Remote API Access on Default route to turn on and off data (IC-2691): This feature leaves the data session open and prevents local data from being broadcast across the satellites when this feature is active. This feature is only available through the API. When this feature is active, the Below Deck Unit (BDU) blocks all data from leaving the BDU, but allows all data into the BDU, which is destined for local services and LAN connected devices. The BDU will respond to service related messages, which are API, Location, and Emergency Services. The preferred method to stop data flow is to disable data and use the remote API on a Secondary Data Flow (SDF) to control the activating and deactivating of data on the default and other SDF channels.
- **New API for GNSS capable antennas (IC-1709):** This feature exposes the LGA antenna's ability to utilize all 4 major Global Navigation Satellite Systems: GPS, GLONSS, BeiDou, and Galileo. The added API endpoints query the configuration and change the active GNSS constellations used. See the API documentation for details and the Management Portal for valid GNSS combinations.
- **Reduction of Non-diagnostic Lines Saved in System Log (IC-1408):** This feature reduced non-diagnostic lines written to the system log.
- **Dashboard Redirects on software upgrade (IC-1361):** This feature directs the Management Portal to display the Dashboard tab after a software upgrade.
- Warnings added to the Management Portal (IC-2115, IC-2090): This feature adds warnings about the impact of potential changes made to the system through the Management Portal. For instance, when port whitelisting is enabled, a warning about the impact on location services, emergency services, and remote API are displayed.
- **Default Location Services URL changed (IC-2193):** This feature changed default Location Services server URL to protocolparser.com.
- **SSL documentation added to the API Documentation (IC-2554):** This feature added documentation about SSL ports, 19998 and 9998 to the API documentation.
- DHCP Address Reservation validated on entry to be within the LAN's range (IC-2033, IC-2118 (ICDT-431, ICDT-429)): This feature validates the DHCP reservations on address entry.



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- **Strong Password rules added (IC-2717):** This feature enforces strong password rules when a password is changed. Passwords used before the software upgrade and the default passwords are maintained.
- **Documentation:** This feature updated the in Below Deck Unit documentation with updated, combined 350 and 200 user manuals and combined 350 and 200 installation manuals.

Irregularities Fixed:

- Maintaining System Time in GPS Deprived Areas with the LGA Antenna: LGA software 101 reports GPS time to the Below Deck Unit only when there is a GPS lock. LGA software 96 would report the wrong time when no GPS lock was obtained, which would cause the system to have an invalid time. Time is maintained in GPS deprived areas with an onboard time holdup battery in the Below Deck Unit.
- Maintaining System Time in GPS Deprived Areas with the HGA Antenna: HGA software 104 reports GPS time to the Below Deck Unit only when there is a GPS lock. HGA software 68 would report the wrong time when no GPS lock was obtained, which would cause the system to have an invalid time. Time is maintained in GPS deprived areas with an onboard time holdup battery in the Below Deck Unit.
- **DTMF tones don't work on POTS line (IC-2189):** When using DTMF tones on the POTS phone on an established call, the tones were not passed. Tones will now pass.
- **IP Addressing on the WAN Interface (IC-2238)**: The requested static IP address or the dynamic IP address requested on the WAN has only one address. Previous software versions had two addresses on that interface.
- Configuring with the Icons on the Management Portal status bar (IC-2113, IC-2099): The icons on the status bar can be used to configure their respective features. Previous software versions froze the Management Portal when apply was clicked. This also fixed a similar behavior when clicking the apply button on the Radio Gateway page.
- **Applying Port Blocking to all traffic (IC-2090):** The port blocking feature covers all traffic exiting the Below Deck Unit. In past releases, DNS messages escaped.
- **Resetting Configuration to Default or Sticking in a Boot Loop (IC-2711)**: Very infrequent configuration corruption at startup has been eliminated.
- **Recording Location Services Errors in the logs (IC-2188):** The Below Deck Unit logs debug information when custom servers reply with an invalid message to a valid location message. Previous software logged an error that appeared that the message was not sent.
- Stalling Location Services When Custom Servers don't Reply to a Valid Location Services Messages (IC-2187): The Below Deck Unit times out when no reply is returned to a valid Location Services Message from a Below Deck Unit. Previous software would stay in the wait state indefinitely.
- Representing Wrong Documentation on LAN DHCP API (IC-2089): Fixed the endpoint.



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- Scaling fails for the SDF DHCP setting on the Management Portal to a Small Screen (IC-2116): SDF DHCP now scales appropriately.
- **Assigning a GRE IP address to xxx.xxx.xxx.2 fails (IC-2762):** GRE IP addresses can be assigned as low as .2 in the last byte. The previous release restricted the lowest address as .3.
- **Failing to Boot at High Temperature (IC-2718):** The Below Deck Unit reliably boots over the full operating temperature. Previous software limited the time to boot to a time shorter than the hardware takes to boot. The time to boot has been increased to give the hardware sufficient time to boot.

Open Issues:

WAN usage:

Can't access WAN via Static routes until it has been assigned as backhaul (IC-2707): If the WAN is ever physically unplugged and plugged back in, configured for Least Cost Routing with WAN as primary, and the WAN is configured to use a DHCP address, the Below Deck Unit gets stuck in the 'Check Gateway' state and will never fail over to WAN. A work around is to either set the WAN up using Static WAN interface, or to boot with WAN cable plugged in and never remove it.

Handset:

Static Addressing not Available on Surelink (ICDT-469): SureLINK supports only dynamic addressing. SureLINK will not operate unless DHCP is turned on in the Below Deck Unit. See the User's Manual for the location of DHCP configuration on the Management Portal and the procedure to enable DHCP.