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Date:	May 23, 2025
Classification:	External
Attention:	All OneWeb Customers
Related Products:	HL1120W
Subject:	HL-Fixed-1.0.60.4A Release bulletin

## 1 Introduction

This release bulletin pertains to software release bundle HL-Fixed-1.0.60.4A for Hughes Leo Electronic Steering Antenna model *HL1120W*, grouped under model type *HL-Fixed* developed by Hughes Network Systems (HNS).

Release	Model Type	Model Number
HL-Fixed-1.0.60.4A	HL-Fixed	HL1120W

An overview of the HL1120W UT is provided in section 1.1. Section 2 describes the software packages included in this release bundle. Also, the software changes made in this release and known issues are listed in sections 3 and 5.

This release has been qualified by Hughes and OneWeb to be used for HL1120W UTs operating in the OneWeb network. HL1120W UTs can be upgraded to use this new release by following the upgrade procedures given in section 7. If the UT is online at OneWeb Device Hub, then use Device Hub to install the latest software bundle on the UT. Otherwise, to install the software locally, use the Hughes LEO mobile app or the Local User Interface (LUI) as described in the UT Installation Guide (1043630).

## 1.1 HL1120W UT Overview

The HL1120W is a full duplex (FDX) user terminal (UT) with WiFi support for fixed installations. The user equipment connects to the UT via Gigabit Ethernet (GigE) or WiFi connections through the indoor equipment. The HL1120W UT connects to the OneWeb LEO satellites using a tracking antenna and provides a user gateway to the OneWeb Ground Network (GN). The user traffic is routed from there to the Core Network (CN) to provide Internet access to the user. The OneWeb Device Hub (DH) provides certain UT management functions.

The HL1120W UT consists of three field replaceable units – outdoor unit (ODU), indoor unit (IDU), and power supply unit (PSU). The FDX ODU is installed outdoors on a mount, while the FDX IDU and PSU are installed indoors. **Figure 1** shows the HL1120W user terminal fully assembled.





- Outdoor Equipment:
  - HL1120-ODU: The FDX ODU antenna assembly consists of two electronically steered antenna panels – the FDX-A panel for the receive (Rx) path and the FDX-B panel for the transmit (Tx) path. Each antenna panel has a Common Control Module (CCM), RF Conversion Module (RCM), and Beam Former Array (BFA). The CCM-A has a host processor that runs the UT software for control, Management, and network services. The CCM-A also houses a satellite modem that communicates with the OneWeb ground network through the OneWeb LEO satellites using the Rx & Tx tracking antennas.
- Indoor Equipment:
  - HL1120W-IDU: The FDX IDU hosts a WiFi Router that provides two GigE ethernet ports and WiFi access to the user data network. The WiFi Router also provides access to the UT's local management interface.
  - HL1120W-PSU: The FDX PSU is an AC-DC power supply assembly providing DC power to IDU and ODU.
  - IFL Cable: The FDX IDU is connected to the ODU via a dual intra-facility link (IFL) cable:
    - IFL-A connects the IDU to the FDX-A panel on the ODU. It carries both DC power & data. The data is transferred over a MoCA link between the WiFi Router on the IDU and the host processor on CCM-A in the ODU.
    - IFL-B connects IDU to the FDX-B panel on the ODU. It carries DC power only.

The PSU has a load-sensing circuit that prevents powering on the user terminal until the IDU & ODU are connected via the IFL cables.

## 1.2 Hughes LEO App

The HL1120W UT has a companion installer app (named Hughes LEO app) that can be used on smartphones to aid in the commissioning, local software upgrade, and status check of the UT. Refer to the UT Installation Guide (1043630) for more details.



## 2 <u>Release Software</u>

The tables below list the software release files that are part of this delivery.

#### Table 1. R1.0.60.4A Software Bundle File

Software Bundle File Name		Notes
HL-Fixed_1.0.60.4A_CCM_5.4.98.1_CCM_BSP_5.4.15_MDM_4.0.1.305_EGR_2.20_CNX_1.01.66.tar.gz	R1.0.60.4A	

#### Table 2. R1.0.60.4A Software Packages in Software Bundle

UT Component	Version	Notes
CCM BSP	5.4.15	
CCM APPS	5.4.98.1	Includes AIM/ARC functions
МДМ	4.0.1.305	
OGR (GNSS Receiver)	2.20	
IDU (CNX-H)	1.01.66	

## 3 <u>Release Summary</u>

This release is used for HL1120W UT-type approval. It supports all features listed in the HL1120W Hughes LEO Terminal Data Sheet (H69698, May 24). The new features and bug fixes included in this release are listed below.

## 3.1 Bug Fixes

The release R1.0.60.4A includes the following fixes and enhancements:

ltem	Description	Component
Major	Resolved partition corruption issues triggered by specific software release upgrades.	ССМ
Moderate	Resolved an issue preventing modem resets caused by the startNetworkInterface error.	ССМ
Minor	Resolved corruption in AIM logs to ensure reliable logging.	ССМ
Minor	Fixed an issue preventing the ODU IP address from being changed to a non-default value.	ССМ
Minor	Fixed packet loss on MoCA with 30K datagrams packet size	CNX
Rare	Added a monitor to prevent the loss of the CNX-H WAN port IP address	CNX
Rare	Fixed an upgrade issue where the CNX failed to send an API response to the ODU before rebooting	CNX
Rare	This release includes an enhancement to resolve rare BFA CPLD upgrade failures.	ССМ

Table 3. R1.0.60.4A Bug Fix List



Rare	Implemented an auto-recovery mechanism for handling Modem Sahara crash dumps.	ССМ
Enhancement	Renamed 'Deicing' to 'Heat Assist' in the ODU LUI.	ССМ
Enhancement	Includes a fix that allows configuring the ODU IP address to a new default setting via the UT LUI without affecting the connection with CNX-H. Refer to the section for the procedure to update the ODU to a non-default IP address	CCM/CNX
Enhancement	Enhanced the interpretation of bulk converter temperature reading by the ARC	ССМ
Enhancement	Change in Guest WiFi SSID configuration failed when Guest SSID has open authentication.	ССМ
Enhancement	Enhanced functionality to ensure the modem powers on only after the GNSS receiver becomes operational.	ССМ
Enhancement	Improved router behavior to restart correctly after disabling Bridge mode with all settings applied.	CNX

## 4 <u>Hardware and Software Dependencies</u>

## 4.1 UT Release Dependencies

- 1. R1.0.21 release is being loaded on all newly built UTs at the Hughes factory. Both */factory* and */main* partitions of the FDX-A and FDX-B sides are upgraded to R1.0.21.
- 2. All the UTs delivered earlier (may have R1.0.5 or R1.0.8) need to be sent back to Hughes factory for the hydrophobic coating to be applied and software to be upgraded to R1.0.21 (both */factory* and */main*) on both FDX-A and FDX-B sides.
- 3. Follow the instructions in section 7 for upgrades of FDX UT to 1.0.60.4A based on the current software version running on the UT.

## 4.2 Hughes LEO App

The following table lists the Hughes LEO app software releases that have been verified to be compatible with the R1.0.56 UT software release.

UT Component	Version
Hughes LEO App for iOS	2.00.04
Hughes LEO App for Android	2.00.04

#### Table 4. Compatible Hughes LEO App Release Versions

## 5 Known Issues

#### 5.1 Upgrading UT Firmware with a Non-Default ODU IP Address

This section explains the process of upgrading a UT with an ODU configured with a non-default IP address. These steps apply to UTs being upgraded to HL-Fixed\_1.0.60.4A or higher from a release version earlier than HL-Fixed\_1.0.60.4A.



**Note:** If the UT is already running HL-Fixed\_1.0.60.4A or higher, these steps are not required.

The default IP address of the ODU is 192.168.100.1. If it has been configured to a different IP address, please follow the steps below before proceeding with the UT firmware upgrade:

#### 1. Update ODU to Default IP Address:

- Navigate to Advanced Configuration on the LUI and change the ODU's IP address back to the default value, 192.168.100.1.
- Refer to the provided screenshot to identify the fields that need to be updated. Click Try to temporarily change the ODU's IP address.
- Open the LUI on a new address on a different tab/browser and then click Save to apply the changes.

OneWeb en-US V Home In	stall Antenna Modem GNSS CNX Network Diagnostics Management Help Auto-Refresh 0 🗸 🕐
UT Status	UT Advanced Configuration
Host Processor Logs	Reload
Event Logs	CNX Interface
Configuration	Interface Name
Advanced Configuration	eth0
Fault Management	Interface IPv4 Address
MoCA Information	
System Monitor Statistics	255.255.255.128
Sensor and Device Information	CNX's IPv4 Address
Statistics	192.168.100.3
Self Test Results	Enable DHCP 🗹
TWAMP	DHCP Start Address
	192.168.100. 11
	192.168.100. 78
	MTU Size
	1500 🗸
	Try Save

• Reboot the UT.

- 2. Verify CNX Managed Setting:
  - Ensure the CNX Managed setting is set to True.
  - Refer to the screenshot below to identify the fields to check.

HU	<b>G</b>		
	An Echo	Star Co	npany

OneWeb en-US V Home I	nstall Antenna Modem GNSS	CNX Network Diagnostics Mana	agement Help	Auto-Refresh 0 🗸 🙂
UT Status	UT Configuration			
Host Processor Logs	Save Reload			
Event Logs	cnx_is			
Configuration	Group	Name	Value	Source
Advanced Configuration	ut_component	cnx_is_managed	true	cfg_ces.json
Fault Management				
MoCA Information				
System Monitor Statistics				
Sensor and Device Information				
Statistics				
Self Test Results				
TWAMP				

- If it is not set to True, click on the value, select Delete, and save the changes. This will reset the configuration to True.
- Reboot the UT.

#### 3. Check CNX Information:

- Navigate to Home > CNX > CNX Information on the LUI. Confirm that the CNX Information is correctly populated.
- If it is not populated, contact Hughes Support for assistance.

#### 4. Perform Firmware Upgrade:

• Complete the Software Upgrade on the UT as per section 7.

#### 5. Restore ODU IP Address to Non-Default IP:

• After the software upgrade, return to Advanced Configuration on the LUI and restore the nondefault IP address for the ODU interface as outlined in Step 1.

## 6 **Operational Considerations**

- 1. Multiple User APN is disabled by default. Coordinate with OneWeb support to use multiple user APNs and routed modes.
- 2. If the LUI login authentication is required, coordinate with OneWeb support or Hughes support.
- 3. The MEA event 'QMI\_OW\_EXT\_MODEM\_BELOW\_MEA\_TRACK' is generated by the Qualcomm modem when it computes an elevation angle that falls below the minimum elevation angle threshold as defined by OneWeb and configured by SSM software. It has no impact to the service.



## 7 Installation/Upgrade

HL1120W UT is loaded at the Hughes factory with a baseline UT SW bundle (HL-Fixed-1.0.21) qualified with Device Hub. Both factory and main partitions are programmed with this baseline software bundle at the Hughes factory. Software on the UT (CCM, MDM on FDX-A, and IDU (CNX-H)) is field upgradeable. This section lists the procedure to upgrade the HL1120W UT software.

## 7.1 Determining Current Hardware/Software Versions of the UT

Before installing/upgrading software on a HL1120W UT, the UT's hardware and software version should be determined using the UT's Local User Interface (LUI). Accordingly, an appropriate UT software bundle should be determined to upgrade the UT.

## 7.2 Determining Current Hardware Versions of the UT

Login to the CCM LUI at <u>http://192.168.100.1</u>, and navigate to the Antenna  $\rightarrow$  Hardware Product Information link to view HW information for the FDX antenna, two FDX-A/B antenna panels, and their BFA, RCM, and CCM modules.

OneWeb mus Hor	re Install Artenna Modern GRGS CNX Return	ok Diagnostics Management	Into Auto-Refresh	
Antenna Information	Antenna Hardware Information			
Massaca Datatics	Model Type		HL1120-00U	
interest sectors	Part Number		1508517-001	
Modem <-> Antenna Latency	Revision		08	
Biochage Zones	Serial Number		6112327900041	
	Manufacture Date		5-17-23	
Hardware Status and Configuration			to the second by	
	Antenna Panel Information	Antenna Kx (FDX-A)	Antenna Tx (FDX-8)	
Sensor information.	would type	CON .	004	
Antenna Pointing Status	Parities	1908219-0001	1908019-000	
Hardware Product Information	Casial Number	CTASADONE	G545420024	
	Manufacture Date	07/5/2004B	3.11.11	
Calibration File Versions	analoga inter open			
Beam Forming Anay Chip	Beam Forming Array Information	Antanna Rx (FEIX-A)	Antenna Tx (FDX-8)	
Status	Model Type	804-2		
	Part Number	1508063-0001		
	Revision	09		
	Serial Number	G64M92019W		
	Manufacture Date	20/00/2023 11:42:15		
	Beam Forming Array CPLD Revision	ccm_bfa_cpid_5_0_6	com_bfa_cpid_5_0_8	
	Frequency Converter Information	Antenna Ra (FDX-A)	Antenna Tx (FDX-8)	
	Model Type	UT_RCM	UT_RCM	
	Part Number	1508286-0001	1508285-0001	
	Revision	10	16	
	Serial Number	GSAA72018G	G5A0920A12	
	Manufacture Date	20230813,0618	20221003_1325	
	CCM Information	Antenna Rx (FDX-A)	Antenna Tx (FDX-8)	
	Model Type	COM	COM	
	Part Number	1508105-0001	1508105-0002	
	Revision	07	06	
	Serial Number	G2AC8200CH	GBAC82004G	
	Manufacture Date	31/08/2023 14:19:39	01/08/2023 13:37:59	
	Software Version	CCM_5.4.41.11	COM, 5.441.11	
	Linux BSP Version	CCM_BSP_5A8	CCM_BSP_548	
	Control FPGA Version	00001	66607	
	FPGA Mersion	con_feea_5_0_20	com_fpea_5_0_20	

Figure 2. HL1120-ODU Hardware Information

Navigate to the *Modem*  $\rightarrow$  *Modem Information* link to determine modem information:

	V CCM_5.4.41.11 (main)	O Uptime 0	100:35:27 System Time: Nov 7, 2023, 5:21:25 PM   O Logged in since Nov 7, 2023, 5:52:52 PM		
		Current Software Version	NOMAD_MP55.0W.4.0-00040-9655_GEN_PACK-1		
		IMSI	90160000034242		
	OneWeb Extension	ICCID	8990160000000342425		
	Modem Control Panel	Hardware Revision	10001		
		EID	8903302382130000000026953517638		
	Modem Status	Revision ID	NOMAD_MPSS.OW.4.0-00040-9655_GEN_PACK-1 1 [Aug 14 2023 13:00:00]		
	APN Information	Manufacturer	QUALCOMM INCORPORATED		
	Modem Information	About This Madau			
	OneWeb en-US v Ho	me Install Antenna <b>Modem</b> GNSS	CNX Network Diagnostics Management Help 0 v		
🔒 GN1-EMS OW 🚨 GN2-EMS OW 🚨 GN6-E	MS-OW 🚨 GN7-EMS-OW 🚨 GN3-EMS-OW 🔘 Problem leadin	ng page 💄 GN9-EMS-EMS 💄 LAB GN126-EI	MS-OW 🎩 LAB-GN127-EMS-OW 🔿 OCS-SSM-1 AAA 🙁 TB2-SSM-AAA 🔘 OAT-TB4-SSM-AAA 🚥 CM	M-GN10 HR CMM-125 B hnsweb B rms	
	192.168.100.111/modem/modeminfo			90% 27	© ₹

Navigate to the  $GNSS \rightarrow GNSS$  Information link to determine OGR information:



-EMS OW 🏯 GN2-EMS OW 🛎 GN6-EMS-OW 🛎 GN7-EMS-OW				876 S	0
	OneWeb	es & 009-EMS-EMS & LABONIZE-EMS-OW & LABONIZE-EMS-OW	OCS-SSM-1AAA OTE2-SSM-AAA OOT-TE4-SSM-AAA	en CMM-GRID en CMM-128 @ hnoveb @ ms	
	GRESS Information				
	NAMES OF COMMENT	GRSS Receiver Information	2.00.(01200)		
	Printin status	Hardware Version	00080000		
	NMEA Statistics	Firmware Version from ROM	2.01 (75331)		
	ONSS Status	Protocol Version Supported	PROTVER 16.02		
	11 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Flash Information Structure	FIS 0xEF4015 (79189)		
	ONOS SORIBLICS	Module Identification	MOD LEA-M0F-0		
	PPS Status	Time & Frequency Sync Product Firmware	FTS 1.01		
	PPS Statistics	Supported GNSS Constellation	GPS:SBAS:GLO.BDS:QZSS		

## Figure 4. HL1120-ODU OGR Information

Navigate to the  $CNX \rightarrow CNX$  Information link to determine IDU information:

CNX Chassis Information	
ion Model Number	EBAMA2000069A8
Part Number	EBAMA2000069A8
Revision	F
Serial Number	D331A3000176
Manufacture Date	08/08/2023
CNX Hardware Information	
Model Number	HI1120W-IDU
Part Number	
Revision	
Serial Number	D331A3000176
Manufacture Date	
CNX Firmware Information	
Current Version	1.01.60
Firmware Upgrade Status	None
Vendor	Hughes
CNV Status	
CNX Status	07.1
CNX Status Classification	CNX-H
CNX Status Classification Date Upgraded	CNX-H
CNX Status Classification Date Upgraded DNS Server	CNX-H 192.168.100.111
CNX Status Classification Date Upgraded DNS Server LAN IP4 Address	CNX-H 192.168.100.111 192.168.42.5
CNX Status Classification Date Upgraded DNS Server LAN IPv4 Address LAN IPv6 Address	CNX-H 192.168.100.111 192.168.42.5 fd79.2ed1.7dbac1/60
CNX Status Classification Date Upgraded DNS Server LAN IPv6 Address LAN IPv6 Address Number of Devices Connecte	CNX-H 192.188.100.111 192.188.42.5 1d79.2ed1.7dba:1/60 ed 0
CNX Status Classification Date Upgraded DNS Server LAN IPv4 Address LAN IPv6 Address Number of Devices Connecte System Status	CNX-H 192.168.100.111 192.168.42.5 1d79.2ed1.7dba=1/60 ed 0 good
CNX Status Classification Date Upgraded DNS Server LAN IPv6 Address LAN IPv6 Address Number of Devices Connecte System Status Uptime	CNX-H 192.168.100.111 192.168.42.5 1979.2ed1.7dbs:1760 ed 0 good good gd22h:37m:48s
CNX Status Classification Date Upgraded DNS Server LAN IPv4 Address LAN IPv6 Address Number of Devices Connecte System Status Uptime WAN IPv4 Address	CNX-H (CNX-H 192.168.100.111 192.168.22.5 fd792ed1.7dbs:1/60 rd 0 good good 9d22h:37m:48s 192.168.100.106
CNX Status Classification Date Upgraded DNS Server LAN IPv4 Address LAN IPv6 Address Number of Devices Connecte System Status Uptime WAN IPv4 Address 2.4G Guest Mode	CNX-H (2002) 192.168.100.111 192.168.42.5 14792.2ed1:7dbas:1/60 190.22h37m:48s 192.168.100.106 1164620
CNX Status Classification Date Upgraded DNS Server LAN IPv4 Address LAN IPv6 Address Number of Devices Connecte System Status Uptime WAN IPv4 Address 2.4G Guest Mode 2.4G Mode	CNX-H 192.168.100.111 192.168.42.5 1479:2ed1:7dba:1/60 192.00 19020 192.22.37m:48s 192.168.100.106 116HE20 116HE20
CNX Status Classification Date Upgraded DNS Server LAN IPv4 Address LAN IPv6 Address Number of Devices Connecte System Status Uptime WAN IPv4 Address 2.4G Guest Mode 5G Guest Mode	CNX-H 192.188.100.111 192.188.42.5 1d792ed1.7dba:1/60 1d good good 9d:22N:37m:48s 192.188.100.106 110HE20 116HE20 11AHE80
CNX Status Classification Date Upgraded DNS Server LAN IPv4 Address LAN IPv4 Address Number of Devices Connecte System Status Uptime WAN IPv4 Address 2.4G Guest Mode 2.4G Mode SG Guest Mode SG Mode	CNX-H 192.168.100.111 192.168.42.5 4d79.2ed1.7dba:1/60 4d 0 good 9d.22h.37m.48s 192.168.100.106 116HE20 116HE20 116HE20 11AHE80
CNX Status Classification Date Upgraded DNS Server LAN IPv6 Address LAN IPv6 Address Number of Devices Connecte System Status Uptime WAN IPv4 Address 2.4G Guest Mode 5.G Guest Mode 5.G Mode 2.4G Guest Status	CNX-H 192.168.100.111 192.168.42.5 1d792ed1:7dba:1/60 192.2k327m.48s 192.168.100.106 11054E20 11044E20 11044E20 11044E20 11044E20 0FF

Figure 5. HL1120W-IDU (CNX-H) Information



## 7.3 Determining Current Software Versions of the UT

Login to the CCM LUI at <u>http://192.168.100.1</u>, and navigate to the *Diagnostics*  $\rightarrow$  *UT Status* link to view the current software versions on the CCM */factory*, */main* and */backup* partitions, Modem, OGR, and IDU (CNX-H):

		SUBSCREATE STATES AND A STATES	M @ LAB-0H107-6MS-OW O 0CS-55M	ALAVY O IRS-22W-VVY O OVI-184-22V	A REAL MARKET AND A REAL PROPERTY AND A REAL PROPERTY AND A REAL PROPERTY.	
S GND-ENIS OW S GN6-ENIS-OW S G	24/7-EMS-OW & GN8-EMS-OW O Problem loading page			Auto-Refresh		
	OneWeb en-US V Home	Install Antenna Modem GNSS Ch	X Network Diagnostics Managemen	t Help a v O Logo	ut .	
	UT Status		Dentest Densel			
			Restart Panel			
	How House and Logi	Anterna Neset	unus neser	Crex neser		
	Event Logs					
	Configuration	UT Hardware Information				
	Advanced Configuration	Model		HL1120W		
	Fault Management	Model Type/Platform Type/Clas	sification	HL Fixed		
	bioCA Information	Hardware Revision		08		
		Serial Number		G112327803041		
	System Monitor Statistics	Manufacturing Date		5+17+23		
	Sensor and Device Information					
	Statistics	CCM Hardware Information				
	Self Test Results		Antenna Rx (FDX-A)	Antenna Tx (FDX-B)		
	7444.00	Model Type	ссм	ссм		
	10000	Part Number	1508105-0001	1506105-0002		
		Hardware Revision	07	06		
		Serial Number	G2AC6200CH	G3AC620046		
		manufacturing Date	s1/00/2023 14:19:39	01/06/2023 12/37:09		
		Control FPGA Revision	ccc01	6000 (Page 2000)		
		Condor Frank Manadar	(10)			
		UT Components Software Repo	t			
		CCM Software Information				
		Active Software Partition		main		
			Factory Mai	n Beckup		
〇 윤 192.168.101 L DR2-EMS DW 요 DR6-EMS-DW 요 DR	P. CCM, 5.4.41,11 (main) 0.111/diagnostics/status NP-CMS-OW & CMI-FMS-OW O Problem loading page	Software Version Courses	M 5441.11 COM 5441.11 System Time: Nov 7, 2022, 521.25 M	CCM 5.4.41.11	9M 70% ☆ 2M-A4A ====CAM5-0110 === CAM5-126 @ houseb @ ms	6
් 192.168.10) 0 බ2-045 OW & 046-045-OW & 04	P CCM_2441.11 (main) 0.111/diagnostics/status 16-f4:K6-OW & OH-EMI-OW O Publiem basiling page	Software Version C Software O Uptime 0.0023227	M 5.441.11 COM 5.441.11 System Time Nov 7, 2025, 5.21.25 Hv W & LaB-GN127-EM5-OW O OC5-550 30. Network Obspratter Management	CCM 5.4.41.11 O Logged in since Nov 7, 2022, 5.32.52 ht BAA O TEI-SSM-AAA O CAT-TH-55 Badde Defrem D D Logged	786 705 ☆ 284444 === CAR6-2315 === CAR6-125 @ Transels @ mis	e
⊙ & 192.168.101 & G12-EMS DW & G18-EMS-DW & G1	P COM_3.4.4.1.11 (mains) 0.1111/dispression/status 0.2140/com & Other Com O Problem Inading page O Contributi (mains)	Software Version C Contract, O Uptime COCESSO OVER-ENSE & LAB ON125-ENSE O Home Indial Antonia Nacion OVES Scientisatione meanuaces	XM 5441.11         CCM 5441.11           System Time: Nov 7, 2022, 521.25 HV           W & LAB-GH127-GH4-GW         O CC-550           201         Netwern         Diagnatics           202         Netwern         Diagnatics	CCM 5.441.11 O cogped in size Nov 7, 2023, 532.52 ht BAB. O TEX-559-AAB. O 047-TE4-55 Adds Saferen State Saferen O integrat.	704 🟠	C
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Figure 6. HL1120-ODU, HL1120W-IDU Software Information

## 7.4 Software Installation / Upgrade Methods

Two methods available to update HL1120W UT to this software release are given below.

- > The recommended normal procedure for upgrade via Device Hub is given in section 7.4.1.
- Another method for local upgrade using the UT's Local User Interface (LUI) is described in section 7.4.2.

## 7.4.1 Preferred – UT Software Bundle Upgrade from Device Hub

Device Hub allows new software bundles to be uploaded to its platform and approved for use in upgrading UTs. Then, Device Hub allows the upgrade of an approved UT software bundle on a UT. When the UT is online, Device Hub will interact with UT via a new release notification API call for UT to download the new bundle from Device Hub and initiate an upgrade after a configurable timer expiry.

Also, when UT sends a UCR message to Device Hub (e.g., after restart), Device Hub will send a UCM message, which will trigger the UT to download the new bundle from Device Hub and initiate an upgrade after a configurable timer expiry.

Coordinate with OneWeb support for the procedure to upgrade HL1120W UTs from Device Hub. Follow the software upgrade instructions below for R1.0.60.4A.



The steps below outline the upgrade process based on the currently installed software version.

#### 1. Upgrading from R1.0.56 and R1.0.50:

- a) Coordinate with OneWeb support for the Device Hub hotfix to disable the watchdog prior to upgrading the terminal.
- b) Ensure the terminal is online in the Device Hub, then initiate the upgrade to R1.0.60.4A.

#### 2. Upgrading from R1.0.21, R1.0.36:

- a) First, upgrade to R1.0.60.1A from the device hub.
- b) Verify that the terminal is online in the Device Hub with release R1.0.60.1A installed.
- c) Proceed with the upgrade to R1.0.60.4A from the Device Hub.

## 7.4.2 UT Software Bundle Upgrade using LUI

**Note:** This method should be used only for troubleshooting purposes.

A UT software bundle can provide software images for all components of the UT (e.g., CCM Host Processor (CCM BSP & APPS), Modem, IDU, OGR). The UT Installation process (refer to UT Installation Guide (1043630)) allows a user to upload a software bundle to upgrade software on the UT as part of UT installation. Uploading a software bundle will update the */main* partition on the CCM, preserving the original factory image.

The steps below outline the upgrade process via the LUI based on the currently installed software version.

#### 1. Upgrading from R1.0.56 and R1.0.50:

a) SSH to the terminal and run the following command:

touch /misc/nowdog.dat && sync && reboot

- *b*) Reboot the terminal.
- c) Refer to the AAA Fixed UT Installation Guide [1043630-0001] for instructions on upgrading the Hughes LEO ESA UT using a bundle upgrade via the LUI. This method, which is part of the UT installation process, allows users to upload a software bundle to upgrade the Hughes LEO ESA Fixed UT.

#### 2. Upgrading from R1.0.21, R1.0.36:

- a) First, upgrade to R1.0.60.1A by following the AAA Fixed UT Installation Guide [1043630-0001] to perform software via the LUI.
- b) Verify that the terminal is online and running release R1.0.60.1A.
- c) Proceed with the upgrade to R1.0.60.4A by following the same AAA Fixed UT Installation Guide [1043630-0001] for a bundle upgrade via the LUI.