Upgrading the iQ Next Gen Modem to Velocity Release 3.5.2.x



iDirect Velocity™

Release 3.5.2.x

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December 13, 2023



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iDirect Government created in 2007, is a wholly owned subsidiary of ST Engineering iDirect and was formed to better serve the U.S. government and defense communities. In 2019, iDirect Government acquired Glowlink Communications Technology, Inc.

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Revision History

The table below lists the revisions of this document. To determine whether this is the latest revision, check the TAC website.

Version	Date	Revision Update
1	December 13, 2023	Initial release of document.

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Upgrading the iQ Next Gen Modem to Velocity Release 3.5.2.x

The following procedures detail upgrading an "out-of-the-box" iQ Next Gen Modem to Velocity Release 3.5.2.x. The process consists of the following steps:

- 1. Download the 3.5.2.x Upgrade Files
- 2. Connect to the Modem
- 3. Activate the Factory-Installed Velocity Software Package
- 4. Upload/Install the 3.5.2.x Upgrade Files (Active Partition)
- 5. Activate the Velocity 3.5.2.x Software Package (Active Partition)
- 6. Upload/Install the 3.5.2.x Upgrade Files (Backup Partition)

Download the 3.5.2.x Upgrade Files

Before beginning the procedures below, download the applicable Velocity 3.5.2.x upgrade software files to your computer (iqseries_rootfs_urt_3.5.2.x-xxxxx.pkg). There are two (2) files – one for the Active Partition and one for the Backup Partition. For example:

- iqseries_rootfs_urt_3.5.2.1-12132.pkg (Active Partition)
- iqseries_rootfs_urt_3.5.2.1-12131.pkg (Backup Partition)

Connect to the Modem

1. Connect to the modem (192.168.0.1) using a supported browser (latest version of Chrome, Firefox, or Internet Explorer). The login screen appears.



- 2. Enter the User Name and Password below and click the Log In button.
 - User Name: admin
 - Password: iDirect

The System Status Screen appears.

Dashboard Details	 Commissioning Administration 				admin ~
System Status Go Offline	S	The terminal is currently not in network. Please start the commissio	ning wizard if the terminal hasn't beer rd	n commissioned yet.	
Link Status		Receiver SNR (primary)		Take me to	
Network Status	WAITING_FOR_RX_LOCK	•		View Satellite Details View Terminal Details View current LAN three	author t
Satellite Heceiver	Waiting for Demod Lock	-10		- Her conent Dar und	ougriput
Receive SNR	-10 dt	13:32 13:33 Receiver SNR (prin	3 ³ 34 13 ³ 5 ary) in d8		
Terminal Information	1	Device Status		Terminal Events	
				Up Time	Description
Model Type	iQ200Rackmount	CPU Load	<u>bs</u>	10sec	LAT-LONG : [LAT = 0.0000000N LONG = 0.0000000E]
Serial Number	224794	Memory Use 76 %	bs.		
Software Version	EVOLUTION - 23.0.1.0 26				

3. Click on the **Administration** drop-down menu at the top of the screen and click on **Software and Configuration**.



The Administration – Software and Configuration Screen appears. As shown in the screen below, the modem boots running the factory-installed Evolution Software Package.

							0011111 -
Administration - Software & Configuration							
Manage Software Packages							Reboot Terminal
Upload Software Package: Select Files	0						
Partition	Туре	0	Description			Version	
active1	Velociły Remote	1	Direct Remote Terminal Ap	plication		3.5.1.0-11305	Activate Software Package
active0	Evolution Remote	emote iD		iDirect Remote Terminal Application			Activate Software Package
factory	Evolution Remote	it	Direct Remote Terminal Ap	plication		23.0.1.0-26	Software package is currently active
Configuration Files							
Description	Filename Vers	sion	Date	Size			
iDirect manual configuration	downstream_config.json		12/31/1969	440	Upload Cont	figuration File	Download Configuration File
iDirect remote configuration f	falcon.opt		12/31/1969	4783	Upload Cont	figuration File	Download Configuration File

Activate the Factory-Installed Velocity Software Package

As mentioned in the previous section, the modem boots up with the factory-installed Evolution Software Package. However, the **modem must be running on Velocity Software to perform the upgrade**. Follow the steps below to activate the factory-installed Velocity Software Package.

1. Click on the **Activate Software Package** button for the Velocity Release Software in the first row (Active1) of the Manage Software Packages Table.

Dashboard Details ~ Commissioning ~	Administration ~						admin 🗸
Administration - Software & Con Manage Software Packages	figuration						Reboot Terminal
Upload Software Package: Select Files	•						
Partition	Туре	C	Description			Version	
active1	Velociły Remote	0	Direct Remote Terminal Ap	oplication		3.5.1.0-11305	Activate Software Package
active0	Evolution Remote	10	Direct Remote Terminal Ap	plication		23.0.1.0-26	Activate Software Package
factory	Evolution Remote	iC	Direct Remote Terminal Ap	plication		23.0.1.0-26	Software package is currently active
Configuration Files							
Description	Filename Ve	ersion	Date	Size			
iDirect manual configuration	downstream_config.json		12/31/1969	440	Upload Cont	figuration File	Download Configuration File
Direct remote configuration	falcon.opt		12/31/1969	4783	Upload Cont	figuration File	Download Configuration File

2. Click **OK** at the Reboot Prompt. The following message will appear in the upper-right corner of the screen and the modem will reboot.



3. Once the modem has rebooted, the login screen appears. Log into the modem (admin/iDirect).



The System Status Screen appears. The Software Version in the Terminal Information Area will now show that the modem is now running on the factory-installed Velocity 3.5.1.0 Software Package.

Dashboard Details ~	Commissioning Y Administration Y				admin 🗸
System Status	The terr	ninal is currently not in network. Please start the commissioning wizard if the Start wizard	he terminal hasn't been c	ommissioned yet.	
Link Status		Receiver SNR (primary)		Take me to	
Network Status	WAITING_FOR_RX_LOCK	5		View Satellite Details View Terminal Details	
Satellite Receiver	Waiting for Tuner Lock 0	-5		 View current LAN through 	put
Satellite Transmitter	MUTED ()	-10			
Receive SNR	-100 dB	-15 13/32 13/34 13/36 13/38 - Receiver SNR (primary) in dB	13:40 13:42		
Terminal Information		Device Status		Terminal Events	
ModelType	10200Backmount	CPILLord 12 %		Up Time	Description
model type	IQZUURACKMOUNE	13 %	04	3min 48sec	MODEM_ACU_DISCONNECTED
Terminal Type	3	Memory Use 72 %	<u>ba</u>	1min 45sec	MODEM_TX_MUTED : { "mute_sources": "u nknown" }
Serial Number	224794			1min 45sec	MODEM_STARTING_UP
Software Version	VELOCITY - 3.5.1.0 11305				
Terminal Provisioning Key	EUBW4GQRWOMC4===			00000	

Click on the **Administration** drop-down menu at the top of the screen and click on **Software and Configuration**.



The Administration – Software and Configuration Screen appears. The Manage Software Packages table will also show that the modem is now running on the factory-installed Velocity 3.5.1.0 Software Package.

Dashboard Details Commissioning *	Administration *					admin
Administration - Software & Con Manage Software Packages	figuration					Reboot Terminal
Upload Software Package: Select Files	0					
Software	Package Name	Creation Date			Version	
Release2	iqseries_rootfs_urt_3.5.1.0-11305.pkg	2023.04.04-13:	04:37		3.5.1.0	Software package is currently active
Configuration Files						
Description	Filename	Version	Date	Size		
iDirect remote minimum configuration	TERMINAL_OPT	NMS-Pulse-0.1	12/31/1969	2432	Upload Configuration File	Download Configuration File
iDirect remote Global PKI configuration	GLOBAL_PKI	2.0	12/31/1969	0	Upload Configuration File	Download Configuration File
iDirect remote constellation configuration	CONSTELLATION_OPT	2.0	12/31/1969	-1	Upload Configuration File	Download Configuration File
iDirect remote LAN configuration	TERMINAL_LAN_OPT	2.0	12/31/1969	-1	Upload Configuration File	Download Configuration File

Now that the modem is running on Velocity Software, you can upload, install, and activate the Velocity 3.5.2.x Release Software on the Active Partition.

Upload/Install the 3.5.2.x Upgrade Files (Active Partition)

Follow the procedures below to upload **and** install the applicable 3.5.2.x Upgrade File to the Active Partition.

1. Click on the **Select Files** button at the top of the Manage Software Packages Table.

Manage Software Packages





The file will be uploaded to the modem. The progress is displayed to the right of the Select Files button.

Manage Software Packages

Upload Software Package:	Select Files	Uploading 🛟	53% 🕐

The following message will appear in the upper-right corner of the screen when the upload is complete.



IMPORTANT NOTE: Once the file is uploaded to the modem, installation will begin automatically. The file will be uploaded quickly; however, **Installation will take several minutes to complete**. Do **not** interrupt the process.

If the upload/installation fails, do **not** reboot the modem. Try the upload/installation again. If it fails a second time, contact TAC.

The message to the right of the Select Files button will display "Installing Package". However the installation progress is not displayed.

 Manage Software Packages

 Upload Software Package:
 Select Files...
 Installing Package
 Installing Package

Once installation is complete, the following message will appear in the upper-right corner of the screen.



And the message to the right of the Select Files button will display "Installation Success".

Manage Software Pa	ckages		
Upload Software Package:	Select Files	Installation Success	

The newly-installed Velocity Upgrade Software Package will be displayed as "Release1" in the first row of the Manage Software Packages Table.

Dashboard Details ~ Commissioning ~	Administrat						N.				admin ∽
Administration - Software & Conf	iguratio	n					13	🥜 2 Succe	ises 😢 O Error	0 Warnings	×
Manage Software Packages	Manage Software Packages									eted	
Upload Software Package: Select Files Installation Success									The upload has been completed. The release is now being installed The installation has been completed. Please use the buttons		
Software	Package Na	me		Creation Date			Version	below to	activate the desired	release.	
Release1	iqseries_rootfs_urt_3.5.2.1-12132.pkg			2023.12.08-12:05:40			3.5.2.1		Activate Softw	are Package	
Release2	iqseries_roo	otfs_urt_3.5.1.0-11305.pkg		2023.04.04-13:04:37			3.5.1.0		Software package	s currently active	
Configuration Files											
Description		Filename	Vers	sion	Date	Size					
iDirect remote minimum configuration		TERMINAL_OPT	NMS	5-Pulse-0.1	12/31/1969	2432	Upload Configuration File		Download Configu	ration File	
iDirect remote Global PKI configuration		GLOBAL_PKI	2.0		12/31/1969	0	Upload Configuration File		Download Configu	ration File	
Direct remote constellation configuration		CONSTELLATION_OPT	2.0		12/31/1969	-1	Upload Configuration File		Download Configu	ration File	
iDirect remote LAN configuration	Direct remote LAN configuration TERMINAL_LAN_OPT 2.0				12/31/1969	-1	Upload Configuration File		Download Configu	ration File	

Activate the Velocity 3.5.2.x Software Package (Active Partition)

As shown in the screen below, the modem is still running the old 3.5.1.0 Velocity Software Package (Release2 in the table). Follow the steps below to activate the Velocity 3.5.2.x Software Package.

1. Click on the **Activate Software Package** button for the Velocity 3.5.2.x Software Package in the first row (Release1) of the Manage Software Packages Table.

Dashboard Details ~	Commissioning 🗸	Administrat	iristration ~ admin ~							
Administration - So	dministration - Software & Configuration									
Manage Software Pag	Manage Software Packages								Reboot Terminal	
Upload Software Package: Select Files Installation Success										
Software		Package Name 0			Creation Date			Version		
Release1		iqseries_roo	series_rootfs_urt_3.5.2.1-12132.pkg			D		3.5.2.1		Activate Software Package
Release2		iqseries_roo	otfs_urt_3.5.1.0-11305.pkg		2023.04.04-13:04:37	7		3.5.1.0		Software package is currently active
Configuration Files										
Description			Filonoma	Va	elan	Date	Cino			
Description			Filename	ver	sion	Date	Size			
iDirect remote minimum config	guration		TERMINAL_OPT	NM	IS-Pulse-0.1	12/31/1969	2432	Upload Configuration File		Download Configuration File
iDirect remote Global PKI confi	guration		GLOBAL_PKI	2.0		12/31/1969	0	Upload Configuration File		Download Configuration File
iDirect remote constellation co	nfiguration		CONSTELLATION_OPT	2.0		12/31/1969	-1	Upload Configuration File		Download Configuration File
iDirect remote LAN configurati	on		TERMINAL_LAN_OPT	2.0		12/31/1969	-1	Upload Configuration File		Download Configuration File

2. Click **OK** at the Reboot Prompt. The following message will appear in the upper-right corner of the screen and the modem will reboot.



3. Once the modem has rebooted, the login screen appears. Log into the modem (admin/iDirect).

	User Name
<i>iDIRECT</i>	Password
	Log in

The System Status Screen appears. The Software Version in the Terminal Information Area will now show that the modem is running on the Velocity 3.5.2.x Software Package.

Dashboard Details ~	Commissioning V Administration V				admin N
System Status	The	terminal is currently not in network. Please start the commissioning wizard if the Start wizard	terminal hasn't been c	commissioned yet.	D.
Link Status		Receiver SNR (primary)		Take me to	
Network Status	WAITING_FOR_RX_LOCK	0 50		View Satellite Details View Terminal Details	
Satellite Receiver	Waiting for Tuner Lock	-50		View current LAN thro	bughput
Satellite Transmitter	MUTED	-100			
Receive SNR	-100 <i>c</i> B	-150 15/35 15/40 15/45	13:50		
Terminal Information		Device Status		Terminal Events	
				Up Time	Description
Model Type	iQ200Rackmount	CPU Load 18 %	<u>No.</u>	50sec	MODEM_TX_MUTED : { "mute_sources": "u nknown" }
Terminal Type	3	Memory Use 🔵 70 %	<u>bs</u>	50sec	MODEM_STARTING_UP
Serial Number	224794			00000	
Software Version	VELOCITY - 3.5.2.1 12132				
Terminal Provisioning Key	EUBW4GQRWOMC4===				

4. Click on the **Administration** drop-down menu at the top of the screen and click on **Software and Configuration**.



The Administration – Software and Configuration Screen appears. The Manage Software Packages Table will also show that the modem is running on the Velocity 3.5.2.x Software Package (Release1).

Iministration Y								
Administration - Software & Configuration Manage Software Packages Reboot Terminal								
Upload Software Package: Select Files								
Software Package Name				Version				
series_rootfs_urt_3.5.2.1-12132.pkg	2023.12.08-12:05:40			3.5.2.1	Software package is currently active			
Release2 iqseries_rootfs_urt_3.5.1.0-11305.pkg				3.5.1.0	Activate Software Package			
Filename	Version	Date	Size					
TERMINAL_OPT	NMS-Pulse-0.1	12/31/1969	2432	Upload Configuration File	Download Configuration File			
GLOBAL_PKI	2.0	12/31/1969	0	Upload Configuration File	Download Configuration File			
CONSTELLATION_OPT	2.0	12/31/1969	-1	Upload Configuration File	Download Configuration File			
TERMINAL_LAN_OPT	2.0	12/31/1969	-1	Upload Configuration File	Download Configuration File			
	Intration	Irration classe Name Creation Date crites_rootfs_urt_35.2.1-2132.pkg 2023.12.08-12.05.40 erles_rootfs_urt_35.1.0-11305.pkg 2023.04.04-13.04.37 crites_rootfs_urt_3.5.1.0-11305.pkg 2023.04.04-13.04.37 Filename Version TERMINAL_OPT NINS Pulse 0.1 GLOBAL_PRI 2.0 CONSTELLATION_OPT 2.0	ministization →	minimitation →	Kersion Kersion Date Version creation Date Version eries_rootfs_urt_35.21-12132.pkg 2023.12.08-12:05:40 5.2.1 eries_rootfs_urt_35.21.011305.pkg Date Version Eries_rootfs_urt_35.1.0.11305.pkg Date Size Filename Version Date Size OBATE Size ColsBAL_PRI 2.0 Date Size ColsBAL_PRI 2.0 2.12/31/1969 Quipload Configuration File ColsBAL_PRI 2.0 12/31/1969 Quipload Configuration File TERMINAL_LAN_OPT 2.0 12/31/1969 1 Upload Configuration File ERMINAL_LAN_OPT 2.0 2.12/31/1969 1 Upload Configuration File Configuration File Configuration File Configuration File Confi			

The modem is now running on Velocity 3.5.2.x from the Active Partition. Follow the steps below to upload **and** install the applicable 3.5.2.x Upgrade File to the Backup Partition.

Upload/Install the 3.5.2.x Upgrade Files (Backup Partition)

Follow the steps below to upload/install the 3.5.2.x Upgrade Files to the Backup Partition.

1. Click on the Select Files button at the top of the Manage Software Packages Table.

Manage So	ftware Pac	kages
-----------	------------	-------

Upload Software Package:	Select Files	0

2. Locate the 3.5.2.x Files that you downloaded to your computer, and select the applicable file for the Backup Partition (e.g., iqseries_rootfs_urt_3.5.2.1-12131.pkg).

🚱 Open				
← → × ↑ 🖡	> Th	is PC > Downloads >		
Organize - Nev	v folde	er		
Ouick access		Name	Date modified	
Desktop	 Last week (8) iqseries_rootfs_urt_3.5 	Last week (8) iqseries_rootfs_urt_3.5.2.1-12132.pkg	12/8/2023 8:52 AM	
Downloads Documents	*	iqseries_rootfs_urt_3.5.2.1-12131.pkg	12/8/2023 8:52 AM	

The file will be uploaded to the modem. The progress is displayed to the right of the Select Files button.

Manage Software Packages	
--------------------------	--

Upload Software Package:	Select Files	Uploading 🛟	53% 🕐

The following message will appear in the upper-right corner of the screen when the upload is complete.



IMPORTANT NOTE: Once the file is uploaded to the modem, installation will begin automatically. The file will be uploaded quickly; however, **Installation will take several minutes to complete**. Do **not** interrupt the process.

If the upload/installation fails, do **not** reboot the modem. Try the upload/installation again. If it fails a second time, contact TAC.

The message to the right of the Select Files button will display "Installing Package". However the installation progress is not displayed.

Manage Software Pa	ckages		
Upload Software Package:	Select Files	Installing Package 👔	

Once installation is complete, the following message will appear in the upper-right corner of the screen.

V 2 Successes	0 Errors	0 Warnings	×
2 actions wore such			
 The upload has installed 	s been completed	d . The release is now be	eing

And the message to the right of the Select Files button will display "Installation Success".

Manage Software Pa	ckages		
Upload Software Package:	Select Files	Installation Success 🕜	

The newly-installed Velocity Upgrade Software Package will be displayed as "Release2" in the second row of the Manage Software Packages Table.

Dashboard Details ~ Commissioning ~	Administrat	ion Y						admin
Administration - Software & Cor	nfiguratio	n						🥩 2 Successes 😧 0 Errors 🔔 0 Warnings 🗙
Manage Software Packages						la la	2 actions were successfully completed	
Upload Software Package: Select Files	Success 1						 The upload has been completed. The release is now being installed The installation has been completed. Please use the buttons 	
Software Package Name				Creation Date			Version	below to activate the desired release.
Release1	iqseries_roo	otfs_urt_3.5.2.1-12132.pkg		2023.12.08-12:	05:40		3.5.2.1	Software package is currently active
Release2	iqseries_roo	otfs_urt_3.5.2.1-12131.pkg		2023.12.08-11:	30:44		3.5.2.1	Activate Software Package
Configuration Files								
Description		Filename	Ver	sion	Date	Size		
iDirect remote minimum configuration		TERMINAL_OPT	NM	S-Pulse-0.1	12/31/1969	2432	Upload Configuration File	Download Configuration File
iDirect remote Global PKI configuration		GLOBAL_PKI	2.0		12/31/1969	0	Upload Configuration File	Download Configuration File
iDirect remote constellation configuration		CONSTELLATION_OPT	2.0		12/31/1969	-1	Upload Configuration File	Download Configuration File
iDirect remote LAN configuration		TERMINAL_LAN_OPT	2.0		12/31/1969	-1	Upload Configuration File	Download Configuration File

The upgrade is complete. There is **no need** to Activate the Backup Partition Software Package.

Final Steps

Load the Option Files and commission the modem as detailed in the *iDirect Terminal WUI User Guide*.