User guide.

verizon /

5G Home

Router 1A

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1

Introduction

Overview Ports and Buttons Indicator LED Getting Started Power Management Caring for Your Router

Overview

The 5G Home Router 1A is a wireless device that delivers Internet service. You can provide network and Internet connectivity via Wi-Fi and Ethernet. Connect laptops, tablets, e-readers, gaming consoles and more.



Figure 1. 5G Home Router 1A

System Requirements

- Compatible with all major operating systems.
- Works with the latest versions of browsers, including Android[™], Google Chrome[®], Firefox[®], Internet Explorer[®], Safari[®] and Mobile Safari[™].

To use Wi-Fi mode, your computer needs Wi-Fi capability. If your computer does not have Wi-Fi capability you can use Ethernet.

To function properly, your 5G Home Router 1A must be connected with an eligible Verizon Wireless Data plan.

Ports and Buttons



Figure 2. Ports and Buttons on the 5G Home Router 1A

- 1. Phone port 2 (RJ-11) phone connector port.*
- 2. Phone port 1 (RJ-11) phone connector port.*
- 3. Home Security port (RJ-31) Home Security connector port. *

WARNING! Do not connect phone, fax or any other devices to the yellow port labeled ALARM. Doing so could damage the 5G Home Router 1A.

- 4. Ethernet ports 1/2/3 Local Area Network (LAN) connector ports.
- 5. Modem port external modem port (connects to 5G modem).
- 6. WPS button allows devices to connect to the router using WPS.
- 7. USB USB port (do not plug anything into this port).
- 8. Power on/off button powers the router on and off.
- 9. Power port AC power connector port.

*Future feature

Indicator LED

The front of the 5G Home Router 1A has an indicator LED embedded in the vertical gap on the left side. It changes colors and either blinks or glows solid to communicate current states for the device.



Figure 3. Indicator LED on the 5G Home Router 1A

Table 1. LED States

LED Color	Operation	Meaning
Green	Blinking	5G Home Router 1A is booting up.
	Solid	The router is connected to the Internet.
Yellow	Blinking	Software update is in progress, or device is powered by battery only.
Red	Blinking	No service, critically low battery (10% or less), SIM error, or locked SIM.

Getting Started

To set up and use your 5G Home Router 1A for the first time:

- 1. Confirm that your computer meets the minimum system requirements. (See "System Requirements" on page <u>3</u>.)
- 2. Install the batteries. (See "Installing the Batteries" on page <u>6</u>.)
- 3. Plug in the power adapter and power on the unit. (See "Powering On" on page 7.)
- 4. Connect your computer or other Wi-Fi enabled devices to the router using Wi-Fi. (See "Connecting Devices Wirelessly" on page <u>8</u>.)
- 5. Connect up to three devices via Ethernet. (See "Connecting Devices with Ethernet" on page <u>10</u>.)

Installing the Batteries

The 5G Home Router 1A comes with three AA batteries that provide backup for voice calls during power outages.¹

NOTE: Data service is not available when the 5G Home Router 1A is running on backup batteries.

IMPORTANT: Whenever you remove or insert batteries, make sure your 5G Home Router 1A is not connected to any device or power source. Never use tools, knives, keys, pens or any type of object to force the battery cover open or to remove the battery. Doing so could puncture the battery.

CAUTION: Risk of explosion if the batteries are replaced by an incorrect type. Dispose of used batteries according to the instructions on page <u>55</u>.

¹ Voice calls will be available in a future release

To install batteries:

1. Press your finger against the battery cover removal tab on the underside of the router, then lift and open the cover.



- 2. Insert the three standard AA batteries into the cavity.
- 3. Close the battery cover, making sure it snaps shut.

IMPORTANT: Replace the batteries every six months or after a power outage. When the batteries are at a critically low level (10% or less), the LED blinks red.

Before using the 5G Home Router 1A, read the battery safety information in the "Safety Hazards" section of this guide. (See Proper Battery Use and Disposal on page <u>55</u>).

Powering On the Router

The 5G Home Router 1A comes with a power cord and an AC wall adapter power supply.

WARNING! Do not disable the power cord grounding plug. The grounding plug is an important safety feature. Plug the power cord into a grounded (earthed) AC outlet that is easily accessible at all times.

WARNING! Use only the AC wall adapter power supply that came with the 5G Home Router 1A (or one that has been approved by Verizon Wireless for use with the 5G Home Router 1A). Unapproved AC wall adapter power supplies could cause the router to overheat or catch fire, resulting in serious bodily injury, death, or property damage.

To plug in and turn on the router:

- 1. Attach the power cord to the AC wall adapter power supply.
- 2. Plug the power cord into the power port on the back of the router.
- 3. Plug the power adapter into an AC wall outlet.
- 4. Press the On/Off button on the back of the device to turn it on.



Figure 4. Attaching the power cord

NOTE: Press the On/Off button on the device to turn it off.

Connecting Internet/Network Devices

With the 5G Home Router 1A, Wi-Fi devices wired devices can connect to the mobile broadband network simultaneously.

Connecting Devices Wirelessly

You can connect to your 5G Home Router 1A with your computer, tablet or other wireless devices that have Wi-Fi and Internet browser software. Your 5G Home Router 1A is compatible with all major operating systems, and works with the latest version of browsers, including Android, Google, Chrome, Firefox, Internet Explorer, Safari and Mobile Safari.

The default wireless network name (SSID) and wireless password are printed on the bottom of your router. Use these defaults to log into the router the first time. Once a device is connected to the Internet, you can use the Web User Interface to change the default SSID or password to something easier to remember (see "Managing Wi-Fi Access" on page <u>16</u>).

MODEL: R1000 FCCI	D: PKRNVWR1000
Designed by Inseego SKU: 649496024215 IMEI: 990006368060991 IMEI: 990006368060991 SERIAL: WH250718800101 IMEI: 98008 Made in China	Vireless Network Name (SSID): Verizon-R1000-6A07 Wireless Password: faf46 119 Router/Account Management URL: vzw.com/myverizon Need help? Call: 1.800.922.0204

Figure 5. SSID and Password on Bottom Label

To connect a Wi-Fi capable device to your router:

- 1. Make sure the 5G Home Router 1A is powered on, and the indicator LED is solid green.
- 2. Turn on your wireless device and open the Wi-Fi application or controls.

TIP: The steps to connect to a Wi-Fi network vary depending on your operating system and whether you use the native application or third-party software. Generally, with a PC, you click on the Wi-Fi icon in the task bar and select from a list of available networks. On a Mac[®] computer, click the Wi-Fi icon on the menu bar. If you are unfamiliar with wireless networking on your computer, consult the computer's help system.

- 3. Find and select the 5G Home Router 1A Wi-Fi name (SSID).
- 4. When prompted, enter the Wi-Fi password.

Your Wi-Fi capable device is now connected to the Internet. To view or change 5G Home Router 1A settings, go to the router's Web User Interface at <u>http://my.router</u> or http://192.168.0.1 (see Chapter 2, Customizing Your Router).

Connecting Devices with Ethernet

You can connect up to three wired devices such as laptops, printers, and gaming consoles via Ethernet.



Figure 6. Ethernet Ports on the 5G Home Router 1A

To connect Ethernet devices:

- 1. Plug one end of an Ethernet cable into one of the three Ethernet ports on the router.
- 2. Plug the other end of the cable into the Ethernet port of the device you wish to connect.

Devices plugged into the router via Ethernet have instant access to the Internet.

Caring for Your Router

Like any electronic product, the 5G Home Router 1A must be handled with care to ensure reliable operation. The following guidelines are recommended:

- Protect the router from liquids, dust, and excessive temperatures.
- Do not apply adhesive labels to the router as they may cause the router to potentially overheat or alter the performance of the internal antenna.
- Store the router in dry and secure location when not in use.

2

Customizing Your Router

Overview Managing Wi-Fi Access Managing Connected Devices Managing Parental Controls Changing Settings Viewing Info About the Router Getting Help

Overview

Use the 5G Home Router 1A Web Interface to manage your router experience. With it, you can:

- Change your SSID and/or passwords (both admin and user)
- View connected devices.
- Check router status and data usage.
- Set up a guest network.
- View all currently connected devices.
- Control access by device and set detailed parental controls.

The 5G Home Router 1A Home Page (below) shows the current Wi-Fi networks and passwords and lists all currently connected devices. It also shows Internet and device status and settings and offers access to online help and the user guide.

Settings —	INSEE CO Router R1000	7	Sign	Out 🗸	 Sign in/out
Wi-Fi info 🗕	- Wi-Fi	Settings	Connected Device	s <u> </u>	Connected
Status and device info	Primary Network(ON) 2.4 GHz Network Name (SSID): Verizon-R1 000-00D1 Passwords	Port Filtering (OFF) Port filtering allows you to select which applications can access the internet. System Update Last system update: 04/22/18/04/26/23 AM	Device John's Work Computer Christ Tablet Milia's Mac	Network Primary Quest Primary	Help and
	Internet Status: Connected Network name: Verizon Wireless Technology: 4GLTE Time connected: 0.01x40:41 (ddirhmmss)	Overview Sebue Jaa Desice Suscent Rose C User Guide		>	заррот
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Figure 7. 5G Home Router 1A Home Page

Accessing the Web Interface

To connect to the 5G Home Router 1A Web Interface:

1. Connect your computer or Wi-Fi capable device to your 5G Home Router 1A to access the Internet. (See page <u>8</u>.)

IMPORTANT: You can only access the 5G Home Router 1A Web User Interface when you are connected to the router.

2. Open your connected device's web browser and type <u>http://my.router</u> or <u>http://192.168.0.1</u> into

the address bar. Press Enter. The 5G Home Router 1A Home page opens.

- 3. Click Sign In in the upper-right corner of the page.
- 4. Type your Admin password and click Sign In.

NOTE: The default Admin password is printed on the bottom of the router. If you have changed the Admin password and don't remember it, click **I forgot the Admin Password**. After you correctly answer a security question (set up when you changed the password), the current password is displayed.

You are now able to access links in the Home page to customize your router settings configuration.

NOTE: To change your admin password and set up a security question, go to Admin Password on page <u>15</u>.

5G Home Router 1A Home Page

The 5G Home Router 1A Home page is your gateway to configuring and managing your router. It displays current Wi-Fi and router status, lists currently connected devices, and offers links to other pages with option settings and help.

The Home page includes five panels. Click > in the bottom-right corner of a panel to access subscreens with further information and options.

- Wi-Fi (see "Managing Wi-Fi Access" on page 16)
- Settings (see "Changing Settings" on page 24)
- Connected Devices (see "Managing Connected Devices" on page <u>19</u>)
- About (see "Viewing Info About the Router" on page 28)
- Help (See "Getting Help" on page 33)

inseego Sign Out \sim Router R1000 Settings Wi-Fi **Connected Devices** Device Network Primary Network(ON) Port Filtering (OFF) Port filtering allows you to select which 2.4 GHz Network Name (SSID): Verizon-R1 John's Work Computer Primary applications can access the internet. 000-6DD1 System Update Chris' Tablet Guest Password: ۲ Last system update: 09/22/18 09:26:23 AM Mike's Mac Primary 5 GHz Network Name (SSID): Verizon-R10 00-6DD1-5g Password: ۲ Extender Network Name (SSID): Verizon-R 1000-6DD1-ext > > About Help Internet Status: Connected Overview Setup Network name: Verizon Wireless <u>Tips</u> Device Support Page Technology: 4G LTE Time connected: 0:01:40:41 (dd:hh:mm:ss) > > > © 2018 All rights reserved. www.inseego.com

Figure 8. 5G Home Router 1A Home Page

Side Menu

Each subscreen in the 5G Home Router 1A Web Interface includes a menu on the left, which you can use to return to the Home page or jump to other screens: The current screen is indicated by a red bar.

Home	
Wi-Fi	
Connected Devices	
Parental Controls	
Settings	
About	
Help	

Figure 9. Web Interface Side Menu

The side menu includes the following items:

- Home (see "5G Home Router 1A Home Page" on page 13)
- Wi-Fi (see "Managing Wi-Fi Access" on page 16)
- Connected Devices (see "Managing Connected Devices" on page 19)
- Parental Controls (see "Managing Parental Controls" on page 21)
- Settings (see "Changing Settings" on page 24)
- About (see "Viewing Info About the Router" on page <u>28</u>)
- Help (see "Getting Help" on page 33)

Admin Password

The admin password is what you use to sign into the 5G Home Router 1A Web Interface. A default admin password is assigned to each individual device and is printed on the bottom of the router. You can change the admin password to something easier to remember, and set up a security question that will help you securely recover your password if you forget what you changed it to.

NOTE: In the Web Interface, you can set up separate Wi-Fi passwords both primary and guest networks (Internet connection), but these are different from the admin password, which is for the Web Interface.

To change the admin password:

- 1. Click **Sign Out** in the top-right corner of any Web Interface page.
- 2. Enter your current admin password in the Current Admin Password field.

Current Admin Password:	••••	
New Admin Password:	••••	
	Note: Password must be at least 6 characters	
Confirm New Admin Password:		
Select a Security Question:	What is your date of birth?	•
Answer:	Natura Annuar ann ann ann bhu	

- 3. Enter your new password in the New Admin Password field.
- 4. Re-enter your new password in the Confirm New Admin Password field.
- Select a security question from the drop-down list and type an answer to question in the Answer field.
 NOTE: Answers are case-sensitive.

NOTE: Answers are case-sensitive.

6. Click Save Changes.

A message displays confirming that your admin password has been changed.

The next time you sign in to the 5G Home Router 1A Web Interface, use the new admin password. If you can't remember the password, click **I forgot the Admin Password**. After you correctly answer the security question you set up, the current password is displayed.

Managing Wi-Fi Access

The 5G Home Router 1A offers two networks for accessing the Internet over Wi-Fi: Primary and Guest. Each network can be accessed over two bands: 2.4 GHz and 5 GHz:

- The 2.4 GHz band is supported by all devices with Wi-Fi and should be used by devices that are a few years old or older. This band passes through walls better, so it may have a longer range.
- The 5 GHz band is best for newer devices. It offers better throughput and reduced interference.

On the Web UI Home page, the Wi-Fi panel shows the current name (SSID) and state of primary and guest networks. Click the eye icon to view the current passwords for each.

VVI-F1	Settings	Connected Devic	es
Primary Network(ON)	Port Filtering (OFF)	Device	Network
2.4 GHz Network Name (SSID): Verizon-R1	Port filtering allows you to select which applications can access the internet.	John's Work Computer	Primary
000-6DD1 Password: 👁	System Update	Chris' Tablet	Guest
S GHz Network Name (SSID): Verizon-R10 00-8DD1-5g Password: ••••••• •• Extender Network Name (SSID): Verizon-R 1000-6DD1-ext ••	Last system update: 09/22/18 09:26:23 AM	Mike's Mac	Primary
About Internet Status: Connected Network name: Verizon Wireless Fechnology: 4G LTE Line connected: 0:01:40:41 (ddthbr/mm/ss)	Help Overview Setup Lipa Device Support Page C User Guide		

Figure 10. Wi-Fi Panel on the Home Page

To manage settings for these networks, select > from the Home page Wi-Fi panel (or select **Wi-Fi** from the Web UI side menu). The Settings tab of the Wi-Fi page appears. Here you can turn Wi-Fi on or off, specify the bands available to each network, and change band-specific settings.

Select Save Changes to store new settings.

insee					
Router R1000				Sign Out	\sim
Home	Wi-Fi				
Wi-Fi	Settings Primary Network	Guest Network	(
Connected Devices	These settings apply regardless of	which network (Primar)	Cuest or both) is in use Chan	res made to these Wi-	
Parental Controls	settings may prevent some Wi-Fi de	vices from connecting	to this router.	Jes made to these Wi-	
Settings	Wi-Fi				
About	() Allow Wi-Fi devices to connect	to this R1000		ON	
Help	Band Selection				
	Primary Network:	2.4 GHz Band	€ GHz Band		
	Guest Network:	V	V		
	2.4 GHz Band Settings				
	802.11 mode:	802.11bgn			
	Channel:	Automatic	\sim		
	5 GHz Band Settings				
	802.11 mode:	802.11ac			
	Bandwidth	80 MHz	\checkmark		
	Channel	Automatic	\sim		
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Figure 11. Settings Tab of the Wi-Fi Page

To set options for a specific network, select either the **Primary Network** or **Guest Network** tab. Here you can you can assign a new SSID (e.g., "Jones Family - Guest", choose additional security, and create a new password. Select **Generate new password** to have the software create a new secure password.

insee						
Router R1000					Sign Out	\sim
Home	Wi-Fi					
Wi-Fi	Settings	Primary Network	Guest Network			
Connected Devices	octango					
Parental Controls	Note: For add	ded security, share your	guest network instead of	your primary network.		
Settings	Settings					
About	Primary netw	vork name (SSID):	Verizon-R1000-6DD1			
	Security:		WPA/WPA2 Mixed Mode	\sim		
Help	Password:			۲		
			NOTE: Your password must For greater security, use a r lower case and other symbol You can create a new pass generate a new one.	t be 8-63 characters. mixture of digits, upper o ols. word by entering it, or cl sword	case, lick to	
	Options Broadcast pr	rimary network name (S	SID): 🕑			
	WPS:		I)			
© 2019 All rights recorded					Save Changes	
S 2016 All rights reserved.					www.inse	ego.com

Figure 12. Primary Network Tab of the Wi-Fi Page

For either the primary or guest network, you can also set the following additional options:

- Broadcast Network Name (SSID). Select to allow Wi-Fi devices in the area to see this network. The name will appear as on network lists as:
 <SSID>-<router-model>-<last two octets of router MAC address> with -5G added for 5GHz bands.
- WPS. Select to allow WPS-compatible devices to easily connect to this network. (Broadcast Network Name (SSID) must be enabled to use WPS.)

After changing settings, select **Save Changes** to save them.

Managing Connected Devices

On the Web UI Home page, the Connected Devices panel lists all devices currently connected to your 5G Home Router 1A, along with the network they are using.

Vi-Fi	Settings	Connected Device	s
rimary Network (ON) 4 GHz Network Name (SSID): Verizon-R1 00-6DD1 assword: GHz Network Name (SSID): Verizon-R10 0-6DD1-5g assword: xtender Network Name (SSID): Verizon-R 00-6DD1-ext >	Port Filtering (OFF) Port filtering allows you to select which applications can access the internet. System Update Last system update: 00/22/18 00:26:23 AM	Device John's Work Computer Chris' Tablet Mike's Mac	Network Primary Guest Primary
bout ternet Status: Connected etwork name: Verizon Wireless echnology: 4G LTE me connected: 0.01:40:41 (ddinhimmiss)	Help Overview Setup Tips Device Support Page		

Figure 13. Connected Devices Panel on the Home Page

To manage connected devices, select > from the Home page Connected Devices panel (or select **Connected Devices** from the Web UI side menu). The Connected Devices page appears. Here you can view details about connected devices, edit device names, and block or unblock a device from Internet access.

INSEEgo Router R1000					Sign	Out	\sim
Home	Connecte	d Devices					
Wi-Fi							
Connected Devices	Connected	(2)					
Parental Controls	Device			Network	Block		
Settings	67	John's Work Computer		Primary		\sim	
About		Chris' Tablet	\checkmark				
Help	((ı·	IPv4: 192.168.1.212 MAC Address: Link Local:		Guest	Block	\frown	
	Blocked (1)						
	Device				I	Block	
	Ē	Mike's Mac MAC Address: d0:e1:40	:89:7e:c6		Unt	block	
© 2018 All rights reserve	d.					www.inseeg	o.com

Figure 14. Connected Devices Page

The top part of the Connected Devices page lists all devices connected to the 5G Home Router 1A (both wirelessly and via Ethernet) and specifies the network they are connected through.

- To view details on a device, click the down arrow (v) on the right to expand the device row. The following appears:
 - o IP Address displays the IP address of the connected device.
 - MAC Address displays the MAC Address which is a unique network identifier for this connected device.
 - Link-Local Address— displays the Link-Local IPv6 address if the connected device supports IPv6.

Click the up arrow (h) to collapse a row.

- To change the name of a device (as it appears in the 5G Home Router 1A Web UI only), click in the device name field and edit the name. (By default, this is the hostname set on the connected device.)
- To disconnect a connected device and prevent it from reconnecting, click the **Block** button. The device then appears in the Blocked list below. This option is available for each connected device, except for your own device and any devices connected via Ethernet.
- To unblock a blocked device, click its **Unblock** button in the Blocked list.

NOTE: Since blocked devices are not currently connected, they do not have an IP address. Instead, they are identified by their name and MAC address.

Managing Parental Controls

Parental controls in the 5G Home Router 1A Web UI allow you to control internet access to specific devices. You can set up multiple schedules for Internet access and apply them to individual connected devices. For example, you can set up a Kids schedule that only allows Internet access from 3:00 p.m. to 8:00 p.m. every weekday, 8:00 a.m. to 10:00 p.m. on weekends.

To create an Internet access schedule:

- 1. Select Parental Controls from the Web UI side menu.
- 2. Select the **Schedules** tab in the Parental Controls page. Currently defined schedules are listed in the page, with options to view, edit, and (for unapplied schedules) delete.

Devices	Schedules
Create scheo devices in the	dules for when devices can access the internet through your router. Then assign the schedules to e Devices tab.
Schedule	Action
default	View Edit Delete
Kid's Scheo	dule View Edit Delete
Create	new schedule

3. Select Create New Schedule. The New Schedule dialog box appears.

Create	e New	Scheo	dule					×
Schedule Nam	e:							
Description:								
Access: Allo	W	~	,					11
Mon	Tue	Wed	Thu	Fri	Sat	Sun	Start Time	End Time
							hh:mm AM 🗸	hh:mm AM V
								Cancel Save schedule
							_	

- 4. Enter a name for the schedule in the Schedule Name field.
- 5. Enter text to describe the schedule in the Description box.
- 6. Under the **Access** section, determine if you want Allow access during the specified days/times or if you want to Block access during the specified days/times.
- 7. Set a range of time for allowing Internet access:
 - a. Select the days of the week you want the range to apply to.
 - b. Enter start and end times for the range.
- 8. Select **Save Schedule** to close the dialog box and return to the Schedules page, which the new schedule is now listed.

To apply a schedule to a device:

- 1. Select Parental Controls from the Web UI side menu.
- 2. The **Schedules** tab in the Parental Controls page lists all currently connected devices and any applied schedules. ("Unspecified" means no schedule is applied to a device, and Internet access is unrestricted for the device.)

inseedo					
Router R1000				Sign Out	\sim
Home	Parental (Controls			
Wi-Fi	Devices	Schedules			
Connected Devices					
Parental Controls	manage sche	dules in the Schedules	tab.	our router. Create and	
Settings	Device		Schedule		
About	John's Work (Computer	No parental controls		
Help	Chris' Tablet		Kid's Schedule		
	Mike's Mac		No parental controls \checkmark		
				Save Changes	

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- 3. Select a schedule from the drop-down list for a device.
- 4. Select Save Changes.

Changing Settings

On the Web UI Home page, the Settings panel shows the current Port Filtering setting (On/Off) and the date and time of the last system update.

Vi-Fi	Settings	Connected Device	s
A GHz Network(ON) A GHz Network Name (SSID): Verizon-R1 00-6DD1 assword; GHz Network Name (SSID): Verizon-R10 0-6DD1-5g assword; Co-6DD1-sg assword: Co-6DD1-sg	Port Filtering (OFF) Port filtering allows you to select which applications can access the internet. System Update Last system update: 09/22/18 09:26:23 AM	Device John's Work Computer Chris' Tablet Mike's Mac	Network Primary Guest Primary
About Iternet Status: Connected etwork name: Verizon Wireless echnology: 4G LTE ime connected: 0.01:40:41 (dd:hh:mm:ss)	Help Overview Setup Tips Device Support Page User Guide		

Figure 15. Settings Panel on the Home Page

To change system settings, select > from the Home page Settings panel (or select **Settings** from the Web UI side menu). The Settings page appears, with four tabs:

- Preferences lets you set basic display preferences.
- Software Update shows the most recent software version and lets you check for updates.
- Backup & Restore lets you backup and restore system settings.
- Advanced lets you access advanced system settings.

Setting Preferences

The Preference page allows you change how dates, time, and numbers are displayed in the 5G Home Router 1A Web UI.

INSEEGO Router R1000					Sign Out	\checkmark
Home	Settings					
Wi-Fi	Preferences	Software Update	Backup and Restore	Advanced		
Connected Devices						
Parental Controls	Date:	mm/dd/yyyy	\checkmark			
Settings	Time:	12 hr	\sim			
About	Number Format:	3,234.00	\checkmark			
Help					Save char	005
					Save char	gcs
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Figure 16. Preferences Tab on the Settings Page

Select your display choices from the drop-down menus and click Save Changes to update settings.

Updating Software

The Software Update page includes four sections:

- Current Software shows currently installed software and configuration versions.
- Check for New System Update shows when you last checked for updates, and current update status. Click Check for update to check online for available software updates.
 - If a new software update is available, click **Download now** to install it.
 - If a new system update is available, you are given an option to install it now or later.
 - If a configuration update is available, it is installed automatically.
- Last System Update shows the results of the last attempted update (successful, failed, or never updated).
- System Update History shows details about the last two successful software updates. If the system has not been updated, this section shows current version information.

INSEE GO Router R1000							Sign Out	\sim
Home	Settings							
Wi-Fi	Preferences	Software Upda	ate	Backup and Rest	ore	Advanced		
Connected Devices								
Parental Controls	Current Software							
Settings	Software version: Check for New Syst	tem Update	1.15					
About	Checked for update):	09/22/1	8 09:26:23 AM				
Help	Update status:							
							Check for upd	ate
	Last System Update	e						
	Software updated to	o R1000-3.0.4.00	02-1.15 on	09/22/18 at 09:26:2	28 AM			
	Name:		R1000_	3.0.4.001-1.14_to_3.0.	4.002-1.1	5_Real		
	Source:		Verizon					
	Package version:		R1000-3	3.0.4.002-1.15				
	Size:		108.37 N	ИB				

System Update History

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Figure 17. Software Update Tab on the Settings Page

Backing up and Restoring Settings

The Backup & Restore page lets you back up current 5G Home Router 1A settings to a file on your computer, restore backed up settings, reset the router to factory defaults, and restart or shut down the router.

inseego						
Router R1000					Sign Out	\sim
Home	Settings					
Wi-Fi	Preferences	Software Undate	Backup and Pestore	Advanced		
Connected Devices	Telefences	Software Opdate	Backup and Restore	Auvanceu		
Parental Controls	Backup					
Settings	Save your R1000 R1000 Router.	Router settings to your o	computer. Please note that the	e backup file will or	nly work with this par	ticular
About	Admin Password:				Download	
Help						
	Note: You will be password is used	ocked out of the Admin v too many times.	vebsite if an incorrect			
	Restore Setti	ngs				
	Restore backed u	p settings from a file on y	our computer.			
	Admin Password:					
	Note: You will be times.	locked out of the Admin v	vebsite if an incorrect passwo	ord is used too mar	Ny Restore Now	
	Select a file:		Brows	e		
	Restore to Fa	ctory Defaults				
	Restore all setting	gs to the factory default v	alues.	Re	store factory defau	Its
	Restart Route	er				
					Restart	
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Figure 18. Backup & Restore Tab on the Settings Page

To save current 5G Home Router 1A settings to a file on your computer:

1. Enter your admin password in the Admin Password field in the Backup section.

NOTE: The default Admin password is printed on the bottom of the router. If you have changed the Admin password and don't remember it, select **Sign Out** in the top-right corner of the Home page, click **I forgot the Admin Password**, and answer the displayed security question. The current admin password will be displayed.

NOTE: If you enter an incorrect password five times in a row, you will be locked out of the Web UI. To unlock it, restart the router.

2. Click the **Download** button. The file is automatically downloaded to your Downloads folder.

To restore backed-up system settings:

- 1. Enter your admin password in the Admin Password field in the Restore Settings section.
- 2. Click **Browse** and choose a settings file to restore.

NOTE: You can only restore a file that was created for this model of 5G Home Router 1A.

3. Click the **Restore Now** button.

Advanced Settings

Advanced settings are intended only for users with advanced technical knowledge. For information about the Advanced Settings page, go to Chapter 3, "Advanced Settings," on page <u>35</u>.

Viewing Info About the Router

On the Web UI Home page, the About panel shows current Internet status (Connected or Disconnected or Dormant), the name of the network to which the router is connected, and technology (5G or 4GLTE), and time connected.

uter R1000		_	Sign Out 🗸 🗸
Wi-Fi	Settings	Connected Dev	ices
Primary Network(ON)	Port Filtering (OFF)	Device	Network
2.4 GHz Network Name (SSID): Verizon-R1	Port filtering allows you to select which applications can access the internet.	John's Work Computer	r Primary
000-6DD1 Password: ®	System Update	Chris' Tablet	Guest
5 GHz Network Name (SSID): Verizon-R10 00-6DD1-5g Password: & Extender Network Name (SSID): Verizon-R 1000-6DD1-ext	Last system update: 09/22/18 09:26:23 AM	Mike's Mac	Primary
About nternet Status: Connected Network name: Verizon Wireless fechnology: 4G LTE Firme connected: 0:01:40:41 (dd:hh:mm:ss)	Help Overview Setup Jips Device Support Page		

Figure 19. About Panel on the Home Page

To view more detailed information about your router and its use, select > from the Home page About panel (or select **About** from the Web UI side menu).

The About page includes five tabs:

- Internet Status (see page 29)
- 4G LTE Diagnostics (see page <u>30</u>)
- Device Info (see page <u>32</u>)

Internet Status

The Internet Status page shows Internet connection information, divided into three sections: General, IPv4, and IPv6.

INSEE Router R1000			Sign Out	\sim
Home	About			
WI-FI	Internet Status 4G LTE Di	agnostics Device Info		
Connected Devices	General			
Parental Controls	General			
Settings	Current connection:	Connected 4G LTE		
About	Time connected:	0:01:56:54 (dd:hh:mm:ss)		
, , ,	Received:	20.29 MB		
Help	Transmitted:	8.36 MB		
	IPv4			
	IP address:	100.64.186.237		
	Mask:	255.255.255.252		
	Gateway:	10.0.0.1		
	DNS:	198.224.171.135		
	IPv6			
	IP address:	2600:1012:b116:9172:215:ffff:feee:30ed		
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Figure 20. Internet Status Tab on the About Page

The Internet Status section displays the following:

- **Technology** —the type of technology used to connect to the Internet (5G and/or 4GLTE), and the current connection status for each.
- **Time connected** —the amount of time the 5G Home Router 1A has been connected to the network without interruption (dd:hh:mm:ss).
- **Received** —the amount of data received from the network.
- Transmitted —the amount of data sent to the network.

The IPv4 section displays the following:

• IP Address — the IP address for the 5G Home Router 1A.

- Mask —the subnet mask network setting for the 5G Home Router 1A. The default value 255.255.255.0 is standard for small (class "C") networks. If you change the LAN IP Address, make sure you use the correct Subnet Mask for the IP address range containing the LAN IP address.
- Gateway —the address of the server used to access the Internet.
- DNS —the address of the Domain Name Server (DNS).

The IPv6 section displays the following:

• IP address — the IP address for the 5G Home Router 1A.

4G LTE Diagnostics

The 4G LTE Diagnostics page shows information about the 5G Home Router 1A firmware and other system-level information. You can also view the system log. This page is used mostly for troubleshooting and is not required for normal operation.

inseego					
Router R1000				Sign Out	~
Home	About				
Wi-Fi	Internet Status	4G LTE Diagnostics	Device Info		
Connected Devices					
Parental Controls	Modem				
Settings	MDN:				
About	IMEI:				
Hele	IMEISV:				
Help	FW Version:	3.0.4.002			
	SIM Status:	Ready			
	ICCID:				
	ERI Version:	0			
	PRL Version:	0			
	4G LTE Network				
	Status:	Connected			
	Network Operator:	Verizon Wi	reless		
	Signal Strength (RSRP)): -99 dBm			
	SNR:	14 db			
	Band:	2			
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Figure 21. 4G LTE Diagnostics Tab on the About Page

The Modem section displays the following:

• **Phone number (MDN)** — The phone number or Mobile Directory Number (MDN) used by the mobile data network to identify this particular data service.

- IMEI The International Mobile Equipment Identity (IMEI) number for the 5G Home Router 1A.
- **IMEISV** The International Mobile Equipment Identity (IMEI) combined with an approval number for the 5G Home Router 1A.
- FW Version The modem firmware version.
- SIM Status Status of the SIM card. If the SIM card is missing, or if this field indicates a SIM error, the 5G Home Router 1A will not be able to connect to the mobile network.
- ICCID The ID number assigned to the SIM Card.
- ERI Version The Enhanced Roaming Indicator (ERI) version that is currently installed.
- **PRL Version** The Preferred Roaming List (PRL) version that is currently installed.

The 4G LTE Network section displays the following:

- Status Status of the network (Connected, Disabled, Not available, or Available).
- Network operator The vendor that currently provides wireless access.
- Signal Strength (RSRP) Signal strength for LTE.
- SNR A measure of signal quality; the higher the number, the better the signal.
- **Band** What LTE band the 5G Home Router 1A is currently operating on.

Device Info

The Device Info shows general information about the 5G Home Router 1A device and installed software versions.

inseego				Sign Out	\sim
Home	About				
Wi-Fi	Internet Status	4G LTE Diagnostics	Device Info		
Connected Devices	General				
Parental Controls	General				
Settings	Manufacturer:	Inseego			
About	Software Version:	115			
Help	Serial Number:	WH1008	18B00076		
	Software Compo	onents			
	Embedded OS Versio	on: 1.15			
	Modem Firmware Ver	rsion: 3.0.4.002	2		
	Wi-Fi Firmware Versio	on: 3.5.3-00	050-S-1		

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Figure 22. Device Info Tab on the About Page

The Device Info page displays the following information about the 5G Home Router 1A:

- Manufacturer the manufacturer of the 5G Home Router 1A (Inseego).
- Model the model number or name of the 5G Home Router 1A.
- Software Version the version number of the currently installed software.
- Serial Number the serial number of the 5G Home Router 1A.
- Embedded OS Version the version number of the Operating System (OS) embedded in the 5G Home Router 1A.
- Modem Firmware Version the version number of the modem firmware.
- Wi-Fi FW Firmware Version the version number of the Wi-Fi firmware.

Getting Help

On the Web UI Home page, the Help panel includes links to the most frequently accessed help pages:

- Overview
- Setup
- Tips
- Device Support Page
- User Guide

Wi-Fi	Settings	Connected Device	s
A GHZ Network (ON) 2.4 GHZ Network Name (SSID): Verizon-R1 000-6DD1 assword: G GHZ Network Name (SSID): Verizon-R10 00-6DD1-5g assword: Extender Network Name (SSID): Verizon-R 000-6DD1-ext	Port Filtering (OFF) Port filtering allows you to select which applications can access the internet. System Update Last system update: 09/22/18 09:26:23 AM	Device John's Work Computer Chris' Tablet Mike's Mac	Network Primary Guest Primary
About Iternet Status: Connected Ietwork name: Verizon Wireless echnology: 4G LTE Ime connected: 0.01540.41 (dd:hh:mm:ss)	Help Overview Setup Jips Device Support Page [] User Guide		

Figure 24. Help Panel on the Home Page

To access further help, select > from the Home page Help panel (or select **Help** from the Web UI side menu). The Help page appears, with two tabs: Help and Online Support.

Help

The Help tab on the Help page groups links into following sections:

- Using Your Router R1000
- Admin Web Site Help
- Advanced Features

Click any of the links to access online help about the topic.

insee				
IIISEEgo			Sign Out	\sim
Router R1000				
Home	Help			
Wi-Fi				
	Help			
Connected Devices				
Parental Controls	Using your R1000			
Sottings	Overview			
Settings	Tips			
About	Admin Web Site Help	Advanced Features		
Help	Admin Password	Lan		
•	WI-FI - Settings Wi-Fi - Primary Network	Manual DNS Network		
	Wi-Fi - Guest Network	Firewall		
	Connected Devices	MAC Filter		
	Parental Controls	Port Filtering		
	Software Undate	Port Forwarding		
	Backup and Restore			
	About - Internet Status			
	About - Device Info			
	About - Diagnostics			

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Figure 25. Help Tab on the Help Page

3

Advanced Settings

Overview LAN Settings Manual DNS Settings Network Settings Firewall Settings MAC Filter Settings Port Filtering Port Forwarding

Overview

The Advanced Settings pages are intended users with technical expertise in the area of telecommunication and networking.

WARNING! Changing the Advanced settings may be harmful to the stability, performance, and security of the 5G Home Router 1A.

When you select the **Advanced** tab on the Settings page, a warning message appears. If you click **Continue**, the Advanced Settings page appears.

The Advanced Settings page includes seven tabs that present the following Advanced Settings pages:

- **LAN** allows you to specify settings for your Local Area Network (LAN), which includes the 5G Home Router 1A and all connected devices (see page <u>37</u>).
- **Manual DNS** allows you to manually specify a Domain Name Server (DNS) if required (see page <u>38</u>).
- **Firewall** allows you to select settings to protect your connected devices against malicious incoming traffic from the Internet and cannot be turned off (see page <u>38</u>).
- **MAC Filter** lets you limit devices that can connect the primary Wi-Fi network (see page <u>40</u>).
- **Port Filtering** allows you to block outgoing Internet traffic, identified by port numbers (see page <u>41</u>).
- **Port Forwarding** allows you to permit incoming traffic from the Internet to be forwarded to a particular computer or device on your Wi-Fi network. Use to allow Internet users to access any server you are running on your computer, such as a web, FTP, or email server. (See page <u>42</u>.)

NOTE: Port Forwarding must be used for some online games to function correctly. The use of Port Forwarding creates a security risk and should be turned off when not required.

LAN Settings

The LAN page provides settings and information about the 5G Home Router 1A 's local area network (LAN).

inseego					
Router R1000				Sign Out	~
Home	Settings				?
Wi-Fi	Preferences Software Update Backup and Restore Advanced				
Connected Devices					
Parental Controls	LAN Manual DNS Firewall	MAC Filter Port Filtering Por	t Forwarding		
Settings	IPv4				
About	IP address:	192.168.0.1			
Help	Subnet mask:	255.255.255.0			
	MAC address:	28:80:a2:18:6d:cf			
	Turn on DHCP server:	×			
	DHCP lease time:	1440	minutes		
	Start DHCP address range at:	192.168.0.2			
	End DHCP address range at:	192.168.0.254			
	Use Reserved IP Addresses:	Reserve specific IP addresses for	selected devices.		
				Save Change	es
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Figure 26. LAN Tab on the Advanced Settings Page

The LAN page contains the following settings:

- IP Address displays the IP address for the 5G Home Router 1A.
- Subnet Mask displays the subnet mask network setting for the 5G Home Router 1A. The default value 255.255.255.0 is standard for small (class "C") networks. If you change the LAN IP Address, make sure to use the correct Subnet Mask for the IP address range containing the LAN IP address.
- MAC Address displays the Media Access Controller (MAC) or physical address for the 5G Home Router 1A.
- Turn on DHCP server turns the DHCP Server feature on or off.
- DHCP lease time determines how often connected devices must renew the IP address assigned to them by the DHCP server. Normally, this can be left at the default value, but if you have special requirements, you can change this value.
- **Turn on IPv6** turns the IPv6 feature on or off. When on, connected devices can make IPv6 connections to the Internet.
- Link-Local address displays the local address when IPv6 is turned on.

Click Save Changes to activate and save new settings.

Manual DNS Settings

The 5G Home Router 1A automatically selects a Domain Name Server (DNS). The Manual DNS page allows you to manually assign up to two DNS IP addresses.

insee									
Router R1000								Sign Out	\sim
Home	Settings								?
Wi-Fi	Preference	es Sof	tware Updat	e Ba	ckup and Resto	ore	Advanced		
Connected Devices					•				
Parental Controls	LAN	lanual DNS	Firewall N	AC Filter	Port Filtering	Port	Forwarding		
Settings	Your R1000	automatical	ly selects a Do	omain Nam	e Server (DNS) or	you ca	in manually set o	one.	
About	Turn on mai	nual DNS:	6						
Help	DNS 1 IP ad	Idress:		Required (IF	Pv4 or IPv6 address				
	DNS 2 IP ac	ddress:		Optional (IP	v4 or IPv6 address)				
								Save Cl	nanges
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Figure 27. Manual DNS Tab on the Advanced Settings Page

To manually select a Domain Name Server:

- 1. Click the box next to Turn on manual DNS.
- 2. Enter the IP address for the first DNS in the DNS 1 IP address field.
- 3. Enter the IP address for the second DNS in the DNS 2 IP address field, if applicable.
- 4. Click Save Changes.

Firewall Settings

The 5G Home Router 1A firewall determines which Internet traffic is allowed to pass between the router and connected devices. Use the Firewall Securities page to adjust the general security level of the firewall, designate a specific device to receive all traffic, and set up specific firewall rules.

INSEE Router R1000		Sign Out	\sim
Home	Settings		?
Wi-Fi	Preferences Software Undate Backun and Restore Advanced		
Connected Devices			
Parental Controls	LAN Manual DNS Firewall MAC Filter Port Filtering Port Forwarding		
Settings	Select a Security Level setting to allow or block traffic into and through your router.(The d	efault level is Mediu	m.)
About	For more fine-tuned control of inbound and outbound access to addresses and ports add below.	your own Firewall R	ules
Help	Security Level:		
	 Low: Allows inbound traffic to services with open ports matching the inbound requ allowed to any service. (Warning: using a low security setting could leave you devices vulnerable.) 	est port. Outbound tra r router and connecte	affic is id
	Medium: All inbound traffic is rejected. Outbound traffic is allowed for any service.		
	High: All inbound traffic is rejected; Outbound traffic is only allowed for TELNET (p (port 21), HTTP (port 80), HTTPS(port 443), SMTP (port 25), DNS (port 53), f 143).	ort 23), FTP (port 21), POP3 (port 110), IMAP	HTTP (port
	DMZ: Allow DMZ to forward all incoming traffic to a specific connected device. (To forward spec Forwarding .) Allow DMZ:	ific incoming traffic,	use Port
	Destination IP Address:		
		Save Cha	anges
	Firewall Rules:		
	Add rules to block or allow traffic when you know the source and destination. (To contr specific services, use Port Filtering.) These rules take precedence over Security Level	ol outgoing traffic fo settings.	or
	On Rule Name Src. IP Src. Port Dest. IP Dest. Port Protocol Po	licy Delete Mo	ove
	Add new rule		
		Save Chang	ges
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Figure 29. Firewall Tab on the Advanced Settings Page

The Firewall page contains three sections:

- Security Level Sets general security level for the 5G Home Router 1A to Low, Medium or High.
 - Low allows inbound traffic to services with open ports matching the inbound request port. Outbound traffic is allowed to any service.
 - Medium Rejects inbound traffic. Outbound traffic is allowed for any service.
 - High Rejects inbound traffic. Outbound traffic is allowed only for TELNET (port 23), FTP (port 21), HTTP (port 21), HTTP (port 80), HTTPS (port 443), SMTP (port 25), DNS (port 53), POP3 (port 110), and IMAP (port 143).
- DMZ Allows the connected device specified as the DMZ (Demilitarized Zone) IP address to receive all traffic which would otherwise be blocked by the firewall. To use it, select the Allow DMZ check box and enter the IP address of the connected device you wish to become the DMZ device. Then click Save Changes.

NOTE: Allowing DMZ may assist some troublesome network applications to function properly, but the DMZ device should have its own firewall to protect itself against malicious traffic.

• Firewall Rules – Lets you define one or more specific rules for the firewall to follow. Use the fields to set up a rule, and click Add New Rule. New rules are added to the bottom of the list. Use Up and Down to reposition rules on the list.

NOTE: For Src. IP and Dest. IP, enter a specific IP address or the keyword "any."

MAC Filter Settings

With a MAC filter, only selected devices can access the 5G Home Router 1A's primary Wi-Fi network. By default, MAC filter is off. To turn it on and specify device access, use the MAC Filter page.

NOTE: The MAC filter has no effect on the guest Wi-Fi network.

INSEE GO Router R1000					Sigr	n Out	\checkmark
Home	Settings						?
Wi-Fi	Preferences Software Update Backup and Restore Advanced				anced		
Connected Devices							
Parental Controls	LAN Manual DNS F	irewall MAC Filter	Port Filtering	Port Forwar	ding		
Settings	MAC Filter						
About	The MAC filter lets you limit	access to the Router's	Primary Wi-Fi r	etwork to dev	ices you choose		
Help	Select from the list below (y	ou can also add new de	evices). Then tu	rn the MAC filt	ter on.	I	
	Name	Mac Addre	SS	Status	MAC Address Filter	5	Delete
	san-000291	e4:70:b8:0e:8	d:32	Your device			
	test-PC	78:0c:b8:a4:7	7:0c	Offline			
	Add New Device	Ref	resh List		Save Ch	hanges	
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Figure 30. MAC Filter Tab on the Advanced Settings Page

The MAC Filter page lists all devices currently connected to the 5G Home Router 1A.

To turn on MAC filtering, move the **On/Off** slider to ON.

IMPORTANT: Turning on MAC filtering immediately disconnects all devices except the primary device from the Internet.

To add a device to the MAC filter list:

- 1. Click Add new device to add a new blank row to the list.
- 2. Enter the device name in the Name field.
- 3. Enter the MAC address of the device in the MAC Address field.

- 4. Select the MAC Address Filter checkbox.
- 5. Click Save Changes.

To delete a device from the list, select the **Delete** checkbox for the device row and click **Save Changes**.

To discard any unsaved changes and refresh the list, click Refresh List.

Port Filtering

Port Filtering allows you to block outgoing Internet connections and permit only allowed services to access the Internet. You can also define up to 10 of your own services, then select which ones can access the Internet by turning them on or off as needed.



Figure 31. Port Filtering Tab on the Advanced Settings Page

To turn on port filtering:

- 1. Click **ON** on the On/Off slider.
- 2. Select the checkboxes for services you want to be able to access the Internet: Email (POP3,

IMAP, SMTP), FTP, HTTP, HTTPS, and Telnet.

3. If you want to define your own service, use the Custom Services area (see steps below).

NOTE: You need to know details of the traffic used and generated by the services you want to define.

4. Click Save Changes.

To turn off port filtering, so that any application can connect to the Internet, click **OFF** on the On/Off slider.

To add a custom application:

1. Click **Add Custom Service** to add a new row to the custom services list. (You can add up to 10 custom services.)

NOTE: Add Custom Service is available only when the port filtering is turned on.

- 2. In the Service Name field, enter a name for the custom service.
- 3. In the **Start Port** field, enter the beginning of the range of port numbers used by outgoing traffic for the custom service being added.
- 4. In the End Port field, enter the end of the range of port numbers used by the service.

NOTE: If the service uses a single port instead of a range, type the same value for both the **Start Port** and the **End Port**.

- 5. From the **Protocol** drop-down list, select the protocol used by the port range. Choose from Transmission Control Protocol (TCP), User Datagram Protocol (UDP), or both.
- 6. Select the **On** checkbox if you want your new service to be able to access the Internet.
- 7. Click Save Changes to save any changes made to the custom applications.

To delete a custom service, select the Delete checkbox for its row, and click Save Changes.

NOTE: Click on the Port Filtering tab again to remove deleted custom applications from view on the screen.

Port Forwarding

Port Forwarding allows incoming traffic from the Internet to be forwarded to a particular computer or device on your Wi-Fi network. Normally, the built-in firewall blocks incoming traffic from the Internet. Port forwarding allows Internet users to access any server you are running on your computer, such as a Web, FTP, or E-mail server. For some online games, port forwarding must be used in order for the games to function correctly.

IMPORTANT: Port forwarding creates a security risk and should be turned off when not required.

INSEEgo Router R1000		Sign Out 🗸 🗸
Home	O-Minute	0
Wi-Fi	Settings	0
Connected Devices	Preferences Software Update Backup and Restore Advanced	
Parental Controls	LAN Manual DNS Firewall MAC Filter Port Filtering Port Forwarding	
Settings	Port Forwarding	
About	Port forwarding sends specific incoming traffic to a connected device.	
Help	The connected device is specified using its IP address.	II OFF
	Applications	
	Select which incoming application traffic is allowed.	
	On Application Name IP Address	
	DNS	
	FTP	
	HTTP/HTTPS	
	NNTP	
	POP3/POP3S	
	SMTP/Secure SMTP	
	SNMP	
	Teinet	
	TFTP	
	Custom Applications	
	You can define your own applications, and then select which ones can access the in or off as needed. To define an application, you need to know the incoming ports used	ternet by turning them on d by the application.
	On Application Name IP Address Port Type Port Numbers	Protocol Delete
	Add custom application	
		Save Changes
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e zolo Airigitta reactivett.		www.inacego.com

Figure 32. Port Forwarding Tab on the Advanced Settings Page

To turn on port forwarding:

- 1. Slide the Port Forwarding ON/OFF button to **ON**.
- 2. Turn on each Port Forwarding application that needs to be able to access the Internet by checking the box next to one or more applications .
- 3. For each service you want to direct to a single connected device, select the **On** checkbox for the application and enter the IP address of the target device in the IP **Address** field.

4. If you want to define your own application, use the Custom Applications area (see steps below).

NOTE: You need to know the ports and protocol (TCP, UDP) used by the application for incoming traffic.

5. Click Save Changes.

To turn off port forwarding, so that any application can connect to the Internet, click **OFF** on the On/Off slider.

To add a custom application:

1. Click **Add Custom Application** to add a new row to the custom services list. (You can add up to ten custom services.)

NOTE: Add Custom Application is available only when the port filtering is turned on.

- 2. In the **Service Name** field, enter a name for the custom service.
- 3. In the **IP Address** field, enter the IP address of the device you want to direct traffic for the service to.

TIP: To find the IP address of a device, go to the Connected Devices page.

- 4. From the **Port Type** drop-down list, choose Range or Translate.
- 5. Specify port numbers:
 - For range ports, use the **From** and **To** fields to specify the range of port numbers used by outgoing traffic for the custom application.

NOTE: If the application uses a single port instead of a range, type the same value in both the **From** and **To** fields.

- For translate ports, use the Ext. and Int. to specify ports.
- 6. From the **Protocol** drop-down list, select the protocol used by the port range. Choose from Transmission Control Protocol (TCP), User Datagram Protocol (UDP), or both.
- 7. Select the **On** checkbox if you want your new application to be able to access the Internet.
- 8. Click Save Changes to save any changes made to the custom applications.

To delete a custom application, select the **Delete** checkbox for its row, and click **Save Changes**.

NOTE: Click on the Port Forwarding tab again to remove deleted custom applications from view on the screen.

4

Troubleshooting

Overview Common Problems and Solutions Technical Support

Overview

When properly installed, the 5G Home Router 1A is a highly reliable product. Most problems are caused by one of these issues:

• Phones or Ethernet devices connected to incorrect ports. Please refer to the labels next to the ports for proper connections.

The following tips can help solve many common problems encountered while using the 5G Home Router 1A.

First Steps

- Make sure you are using the 5G Home Router 1A in the correct geographic region.
- Ensure that your wireless coverage extends to your current location.
- If you do not receive a strong data signal, move the device to a different location.
- Ensure that you have an active subscription plan.
- Restarting your computer and your 5G Home Router 1A can resolve many issues.

IMPORTANT: Before contacting support, be sure to restart both your computer and your 5G Home Router 1A.

Common Problems and Solutions

The following are some common problems and solutions.

Does the 5G Home Router 1A work during a power outage?

While the 5G Home Router 1A has backup batteries, these are only to support voice calls during a power outage. This feature will be enabled at a later date. Data is not available while the router is running on backup batteries.

How do I reset the Wi-Fi and Router settings back to factory settings?

To reset the Wi-Fi and router settings:

- 1. Connect to 5G Home Router 1A. Open a web browser on the connected device and enter http://192.168.0.1 in your browser.
- Open the 5G Home Router 1A Backup and Restore page after signing in to the Web User Interface. (See <u>Backup and Restore</u> on page <u>27</u>.) The Backup and Restore page has a **Restore** Factory Defaults button. This button resets all Wi-Fi and Router settings to their factory default values. All existing settings are lost.

How do I reset the 5G Home Router 1A back to factory settings?

The master reset button is in a small hole located on the bottom of the 5G Home Router 1A. This button returns the device to factory settings, including resetting the Wi-Fi name (SSID) and password and admin password.

To reset the 5G Home Router 1A:

- 1. Place one end of an unfolded paper clip into the master reset button hole.
- 2. Press the paper clip on the button for about five to six seconds, then your 5G Home Router 1A will restart.

WARNING! The "Reset to Factory Defaults" operation overwrites ALL existing settings. If the Wi-Fi settings change, you will lose this connection, and need to reconnect using the new settings.

Technical Support

IMPORTANT: Before contacting support, be sure to restart both your computer and the 5G Home Router 1A and perform the trouble shooting steps in this guide.

For additional information and technical support, visit any Verizon Wireless store, the online support page at <u>http://VerizonWireless.com/Support/5g/home/</u>, or contact Customer Service at **1-800-922-0204**.

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Product Specifications and Regulatory Information

Product Specifications Regulatory Information Wireless Communications Limited Warranty and Liability Safety Hazards Proper Battery Use and Disposal

Product Specifications

General

Name:	5G Home Router 1A
Model:	R1000
Approvals:	FCC (North America)
Weight:	1174 g / 41.4 oz
Dimensions:	213 mm x 120 mm x 127 mm, 8.39 in x 4.72 in x 5.0 in
Wireless Network	LTE
Wireless Network –	Real simultaneous dual band
Wi-Fi Mode	802.11 a/b/g/n/ac
Default SSID	Verizon-R1000-XXXX
Batteries (non-rechargeable)	
- Size	AA Alkaline (3 @ 1500mAh each)
- Talk/standby time	2 hours talk/24 hours standby on new batteries
Chip Set:	Altair® FourGee 3800
Interface Types:	Phone (RJ11) (2)/Alarm (RJ31) (1)/Ethernet (3)/Modem (1)/WPS (1)/USB (1)/Power (1)
LED:	Status

Technology/Bands

Technology:	4G LTE
Band Designation:	4G LTE Cat 4: B2/B4/B13
GPS:	A-GPS for E911 only

Environmental

Operating Temperature:	-10° C to +55° C (14°F to 131° F)
Storage Temperature:	-30° C to +70° C (-22°F to 158° F)
Drop:	1 meter (3.28 feet) drop, no damage – fully operational
Vibration Stability:	5 Hz to 500 Hz, 0.1 octave/second

Regulatory Information

FEDERAL COMMUNICATIONS COMMISSION NOTICE (FCC - UNITED STATES)

Electronic devices, including computers and wireless modems, generate RF energy incidental to their intended function and are therefore subject to FCC rules and regulations.

This equipment has been tested to, and found to be within the acceptable limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential environment.

This equipment generates radio frequency energy and is designed for use in accordance with the manufacturer's user manual. However, there is no guarantee that interference will not occur in any particular installation. If this equipment causes harmful interference to radio or television reception, which can be determined by turning the equipment off and on, you are encouraged to try to correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

This device complies with Part 15 of the Federal Communications Commission (FCC) Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

WARNING: DO NOT ATTEMPT TO SERVICE THE WIRELESS COMMUNICATION DEVICE YOURSELF. SUCH ACTION MAY VOID THE WARRANTY. THE ROUTER IS FACTORY TUNED. NO CUSTOMER CALIBRATION OR TUNING IS REQUIRED. CONTACT INSEEGO TECHNICAL SUPPORT FOR INFORMATION ABOUT SERVICING YOUR WIRELESS COMMUNICATION DEVICE.

FCC CAUTION: Any changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

MODIFICATIONS: The FCC requires that you be notified that any changes or modifications made to this device that are not expressly approved by Inseego Corp. may void your authority to operate the equipment.

NOTE: The Radio Frequency (RF) emitter installed in your modem must not be located or operated in conjunction with any other antenna or transmitter, unless specifically authorized by Inseego Corp.

RF Exposure Content

FCC Equipment Authorization ID: PKRNVWR1000

This device is authorized for use in Fixed or Mobile applications.

This product has been evaluated for SAR and meets the FCC Guidelines for exposure to radio waves.

For better signal reception, coverage range and data throughput, do not place the router near any physical obstruction, including in close proximity of any object. For RF Safety, a mandatory minimum of 36 cm separation should be maintained between the device and any part of a human body when using the device. Increasing the separation between the device and the body will result in better reception and reduced exposure to radio energy.



Wireless Communications

IMPORTANT: Due to the transmission and reception properties of wireless communications, data occasionally can be lost or delayed.

This can be due to the variation in radio signal strength that results from changes in the characteristics of the radio transmission path. Although data loss is rare, the environment where you operate the modem might adversely affect communications.

Variations in radio signal strength are referred to as fading. Fading is caused by several different factors including signal reflection, the ionosphere, and interference from other radio channels.

Inseego Corp. or its partners will not be held responsible for damages of any kind resulting from the delays or errors in data transmitted or received with the Verizon 5G Home Router 1A device, or failure of the Verizon 5G Home Router 1A device to transmit or receive such data.

Limited Warranty and Liability

Inseego Corp. warrants for the 12-month period immediately following receipt of the Product by Purchaser that the Product will be free from defects in material and workmanship under normal use. THESE WARRANTIES ARE EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

The exclusive remedy for a claim under this warranty shall be limited to the repair or replacement, at Inseego's option, of defective or non-conforming materials, parts or components. The foregoing warranties do not extend to (I) non-conformities, defects or errors in the Products due to accident, abuse, misuse or negligent use of the Products or use in other than a normal and customary manner, environmental conditions not conforming to Inseego's specification, of failure to follow prescribed installation, operating and maintenance procedures, (II) defects, errors or nonconformities in the Product due to modifications, alterations, additions or changes not made in accordance with Inseego's specifications or authorized by Inseego, (III) normal wear and tear, (IV) damage caused by force of nature or act of any third person, (V) shipping damage, (VI) service or repair of Product by the purchaser without prior written consent from Inseego, (VII) products designated by Inseego as beta site test samples, experimental, developmental, reproduction, sample, incomplete or out of specification Products, or (VIII) returned products if the original identification marks have been removed or altered.

Safety Hazards

Do not operate the Verizon 5G Home Router 1A in an environment that might be susceptible to radio interference resulting in danger, specifically:

Areas where prohibited by the law

Follow any special rules and regulations and obey all signs and notices. Always turn off the host device when instructed to do so, or when you suspect that it might cause interference or danger.

Where explosive atmospheres might be present

Do not operate your device in any area where a potentially explosive atmosphere might exist. Sparks in such areas could cause an explosion or fire resulting in bodily injury or even death. Be aware and comply with all signs and instructions.

Users are advised not to operate the device while at a refueling point or service station. Users are reminded to observe restrictions on the use of radio equipment in fuel depots (fuel storage and distribution areas), chemical plants or where blasting operations are in progress.

Areas with a potentially explosive atmosphere are often but not always clearly marked. Potential locations can include gas stations, below deck on boats, chemical transfer or storage facilities, vehicles using liquefied petroleum gas (such as propane or butane), areas where the air contains chemicals or particles, such as grain, dust or metal powders, and any other area where you would normally be advised to turn off your vehicle engine.

Near medical and life support equipment

Do not operate your device in any area where medical equipment, life support equipment, or near any equipment that might be susceptible to any form of radio interference. In such areas, the host communications device must be turned off. The device can transmit signals that could interfere with this equipment.

On an aircraft, either on the ground or airborne

In addition to FAA requirements, many airline regulations state that you must suspend wireless operations before boarding an airplane. Please ensure that the modem is turned off prior to boarding aircraft in order to comply with these regulations. The modem can transmit signals that could interfere with various onboard systems and controls.

While operating a vehicle

The driver or operator of any vehicle should not operate a wireless data device while in control of a vehicle. Doing so will detract from the driver or operator's control and operation of that vehicle. In some countries, operating such communications devices while in control of a vehicle is an offense.

Electrostatic discharge(ESD)

Electrical and electronic devices are sensitive to electrostatic discharge (ESD). Macintosh native connection software might attempt to reinitialize the device should a substantial electrostatic discharge reset the device. If the software is not operational after an ESD occurrence, then restart your computer.

Proper Battery Use and Disposal

IMPORTANT: In event of a battery leak:

- Do not allow the liquid to come in contact with the skin or the eyes. If contact has been made, wash the affected area with large amounts of water and seek medical advice.
- Seek medical advice immediately if a battery has been swallowed.
- Communicate the appropriate steps to be taken if a hazard occurs. Due to the transmission and reception properties of wireless communications, data occasionally can be lost or delayed.

Please review the following guidelines for safe and responsible battery use.

- Do not disassemble or open, crush, bend or deform, puncture, or shred.
- Do not modify or remanufacture, attempt to insert a foreign object into the battery, immerse or expose to water or other liquids, or expose to fire, explosion, or other hazard.
- Only use the battery for the system for which it was specified.
- Do not short circuit a battery or allow a metallic or conductive object to contact the battery terminals.
- Replace the battery only with another battery that has been qualified with the system per this standard. Use of an unqualified battery may present a risk of fire, explosion, leakage, or other hazard.
- Promptly dispose of used batteries in accordance with local regulations.
- Battery usage by children should be supervised.
- Avoid dropping the 5G Home Router 1A or battery. If the 5G Home Router 1A or the battery is dropped, especially on a hard surface, and the user suspects damage, take it to a service center for inspection.
- Improper battery use may result in a fire, explosion, or other hazard.



Glossary

- **4GLTE** Fourth Generation Long Term Evolution. LTE is a standard for wireless data communications technology and an evolution of the GSM/UMTS standards. The goal of LTE is to increase the capacity and speed of wireless data networks using new DSP (digital signal processing) techniques and modulations that were developed around the turn of the millennium. A further goal is the redesign and simplification of the network architecture to an IP-based system with significantly reduced transfer latency compared to the 3G architecture. The LTE wireless interface is incompatible with 2G and 3G networks, so that it must be operated on a separate wireless spectrum.
- **802.11 (a, b, g, n, ac)** A set of WLAN Wi-Fi communication standards in the 2.4 and 5 GHz frequency bands.
- **bps** Bits per second. The rate of data flow.
- **Broadband** High-capacity high-speed transmission channel with a wider bandwidth than conventional modem lines. Broadband channels can carry video, voice, and data simultaneously.
- **DHCP** Dynamic Host Configuration Protocol. Software found in servers and routers that automatically assigns IP addresses and other configuration data to computers, tablets, printers, and other devices connected to the IP network.
- **DHCP Server** A server or service with a server that assigns IP addresses.
- **DNS** Domain Name System. A system for converting host names and domain names into IP addresses on the Internet or on local networks that use the TCP/IP protocol.
- **Firmware** A computer program embedded in an electronic device. Firmware usually contains operating code for the device.
- **GB** Gigabyte. A multiple of the unit byte for digital information storage. Usage depends on context. When referring to disk capacities it usually means 10⁹ bytes. It also applies to data transmission quantities over telecommunication circuits.
- **Gbps** Gigabits per second. The rate of data flow.
- Hotspot A Wi-Fi (802.11) access point or the area covered by an access point. Used for connecting to the Internet.
- **HTTP** Hypertext Transfer Protocol. An application-level protocol for accessing the World Wide Web over the Internet.
- **IEEE**—Institute of Electrical and Electronics Engineers. An international technical/professional society that promotes standardization in technical disciplines.
- **IMEI** International Mobile Equipment Identity. Used in LTE networks to identify the device. It is usually printed on the device and can often be retrieved using a USSD code.
- IP Internet Protocol. The mechanism by which packets are routed between computers on a network.
- **IP Type** The type of service provided over a network.

- **IPaddress**—Internet Protocol address. The address of a device attached to an IP network (TCP/IP network).
- **ISP**—Internet Service Provider. Also referred to as the service carrier, an ISP provides Internet connection service. (*See* Network Operator)
- Kbps Kilobits per second. The rate of data flow.
- LAN Local Area Network. A type of network that lets a group of computers, all in close proximity (such as inside an office building), communicate with one another. It does not use common carrier circuits though it can have gateways or bridges to other public or private networks.
- **MAC Address** Media Access Control. A number that uniquely identifies each network hardware device. MAC addresses are 12-digit hexadecimal numbers. This is also known as the physical or hardware address.
- **Mbps** Megabits per second. The rate of data flow.
- **MSID** Mobile Station IDentifier. A number for a mobile phone that identifies that phone to the network. These numbers are carrier specific.
- **Network Operator** The vendor who provides your wireless access. Known by different names in different regions, some examples are: wireless provider, network provider, and service provider.
- **Network Technology**—The technology on which a particular network provider's system is built; such as LTE or GSM.
- **Port** A virtual data connection used by programs to exchange data. It is the endpoint in a logical connection. The port is specified by the port number.
- **Port Forwarding** A process that allows remote devices to connect to a specific computer within a private LAN.
- **Port Number** A 16-bit number used by the TCP and UDP protocols to direct traffic on a TCP/IP host. Certain port numbers are standard for common applications.
- **PRL** Preferred Roaming List. A list that your wireless phone or device uses to determine which networks to connect with when you are roaming. (Network operator specific).
- **Protocol** A standard that enables connection, communication, and data transfer between computing endpoints.
- **Proxy** A firewall mechanism that replaces the IP address of a host on the internal (protected) network with its own IP address for all traffic passing through it.
- **Router** A device that directs traffic from one network to another.
- **SIM** Subscriber Identification Module. Found in LTE and GSM network technology, the SIM is a card containing identification information for the subscriber and their account. The SIM card can be moved to different devices.
- **SSID** Service Set IDentifier. The name assigned to a Wi-Fi network.

- **TCP/IP**—Transmission Control Protocol/Internet Protocol. The set of communications protocols used for the Internet and other similar networks.
- **TTY** Text Telephones (TTY), also known as Telecommunications Device for the Deaf (TDD), are used by the deaf, hard–of–hearing, and individuals with speech impairments to communicate.
- **UDP** User Datagram Protocol (UDP) is a communications protocol that offers a limited amount of service when messages are exchanged between computers in a network that uses the Internet Protocol (IP). UDP is an alternative to the Transmission Control Protocol (TCP) and, together with IP, is sometimes referred to as UDP/IP
- **USB** Universal Serial Bus. A connection type for computing device peripherals such as a printer, mobile modem, etc. USB on the 5G Home Router 1A is not functional.
- **USB Port Types** The USB ports on computers and hubs have a rectangular Type A socket, and peripheral devices have a cable with a Type A plug. Peripherals that do not have an attached cable have a square Type B socket on the device and a separate cable with a Type A and Type B plug. Ports and connectors are available in different sizes (for example, standard, mini, and micro).
- **VPN**—Virtual Private Network. A secure private network that runs over the public Internet. Commonly used to connect to an office network from elsewhere.
- Wi-Fi Wireless Fidelity. Any system that uses the 802.11 standard developed and released in 1997 by the IEEE.
- Wi-Fi Client A wireless device that connects to the Internet via Wi-Fi.
- **WPA/WPA2**—Wi-FiProtected Access. A security protocol for wireless 802.11 networks from the Wi-Fi Alliance.