RedPort

Setup and Use of RedPort Optimizer Voice with Inmarsat IsatHub (iSavi)

Information and easy-to-follow instructions on how to set up your Optimizer Voice and iSavi IsatHub terminal to connect to the Internet, send and receive SMS and phone calls, and enable VoIP service for affordable voice calling all over the world.

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Optimizer Voice for iSavi: Airtime Control and VoIP at Your Fingertips

Out of the box, the iSavi allows you basic control over data usage by configuring firewall rules (up to 10) and by setting caps on data consumption. It doesn't allow you to configure what programs or software can have access to the Internet, and doesn't compress anything. You are likely to exceed your desired limit without accomplishing all you require. This wide-open "pipe" to the Internet can cause large airtime bills.

Optimizer Voice allows you precise control over who can access your iSavi satellite Internet connection, as well as how they can use that connection. This gives you great flexibility to control your satellite airtime, and helps prevent unwanted airtime bills. Optimizer Voice helps prevent bill shock in the following ways:

- 1. Its built in firewall blocks all internet activity except XGate and RedPort Email, XGate Phone, and XWeb browsing
- 2. Email with XGate is compressed up to 95% of its original size, meaning lower data usage and faster data transfer.
- 3. Web browsing with XWeb compression web-browsing is compressed by a factor of 3 to 5, allowing for faster data transfer and lower data usage.
- 4. It turns your iSavi into a multi-user unit. Up to four users can be sending/receiving phone calls and/or text messages at the same time when using RedPort VoIP service.
- 5. With its RedPort VoIP Service (optional), Optimizer Voice allows you to make voice calls for considerably less than traditional iSavi phone rates. These VoIP calls consume approximately 15 minutes of talk time for each Mb of data. (Compare this with service like Skype which only offer about 1 minute of talk time per MB of data).
- 6. You can also make simple analog voice calls with traditional satellite airtime by using the VoIP-to-circuit-switch capabilities of the Optimizer Voice.
- 7. Its built-in Captive Portal (optional) allows you to restrict web activity. You can generate PIN-codes that can be given away or sold to control web access.

Setup Requirements

The following hardware and software is required:

- Inmarsat iSavi satellite terminal
- RedPort Optimizer Voice
- Optimizer Voice WiFi Bridge plugged into the USB port of the Optimizer Voice (this may have already been done by your dealer).
- IsatHub Control App for your iOS or Android device
- XGate Phone App for your iOS or Android device (Required to use RedPort VoIP service. Without the XGate phone app, you can only connect to the iSavi for standard Inmarsat voice calling).
- XGate and XWeb apps (optional)

For iSavi operational information please refer to the iSavi User Guide.

NOTE: The Optimizer Voice ships pre-configured for use with XGate and RedPort Email service and XWeb Web Browsing service. These services are not included with your Optimizer Voice and must be purchased separately. Contact your satellite service provider for details.

Configure the Optimizer Voice to Pair with the iSavi

Using your PC, Mac, iOS, or Anroid device, connect to the WiFi hotspot created by the Optimizer Voice:

- On a Windows PC, go to: Windows Start > Control Panel > Network Connections
- On a Mac, go to: Apple > System Preferences > Network
- On an iOS device, go to: Settings > Settings > Wi-Fi
- On an Android device, go to: Settings > Connections > Wi-Fi

The Network Name will look something like: 'wxa-153-xxxx' where 'xxxx' may represent the last four digits of the Optimizer Voice Mac address. Select this wireless network.

Open any web browser and enter this URL: http://192.168.10.1

Login with: Username: superadmin Password: webxaccess

Scroll down to the iSatHub WiFi Extender Setup section

Select <Connect> button

You should be taken to the Wireless Overview tab.

Generic MAC80211 802.11bgn (radio0 Channel: 11 (2.462 GHz) | Bitrate: 144.4 Mbit/s SID: wXa-153-2171 | Mode: Master 65% BSSID: 00:08:52:76:21:73 | Encryption: Nom

Generic MAC80211 802.11bgn (radio1 Channel: 6 (2.437 GHz) | Bitrate: 11 Mbit/s SID: ISavi-0006599 | Mode: Client 64% BSSID: AC:CFI:23:2F:BC:70 | Encryption: WPA

Select <Scan>

	Optimizer wXa-153 v1.60b5 Load: 1.02 1.04 1.05 Changes:	0
	Home Services Status System Network Statistics Logout	
	Welcome	
I		
Э	Crew Internet Services - DISABLED	
	🕃 Enable Crew Internet	
;	Email Access Email access settings and parameters:	
	• WEB - http://192.168.0.55/webmail • POP - 192.168.0.55/110	
	SMTP - 192.168.0.55:25 with no connection or authentication security Co to webmail Co to webmail	
	Email Management	
	Create and manage crew email accounts	
	Retrieve, delete, or drop large emails (BigMail) quarantined on the server	
	Perform common email tasks	
	System Status	
	System status overview Bealtime bandwidth usage over satellite link	
	Historic bandwidth usage over satellite link	
	System Message Log	
-i		
	Local WiFi Setup	
_	SSID and Security	
- 6		
	iSatHub WiFi Extender Setup	
	Connect Getet: SatHub WiFi network to connect to.	
	Select Isadrub Wir network to connect to. Select Isadrub Wir network to connect to.	
	Firewall Status: ON Disabiling the firewall allows all traffic to/from the Internet through the router. This options	
	should be used with caution and only when connected to land based WIFI.	
	System	
	Kouter Password	
	Reboot Router	
	🔞 Disable 🔣 Edit 🕱 Remove	
	📿 Scan 🎦 Add	

J

Once the scan has completed, locate the iSavi Wireless Network and select < Join Network>

Home Services Status System Network	Statistics Logout	
Interfaces Wifi DHCP and DNS Hostnames	Static Routes Firewall Diagnostics	
Join Network: Wireless Scan		
iSavi-0006599 67% Channel: 6 Mode: Matter BSSID: AC:CF:	23:2F:BC:70 Encryption: WPA2 - PSK	Join Network

Enter the password to access the iSavi (the default password appears on the iSavi unit). Select <Submit>.

Specify the secret encryption key here.
wwan The allowed characters are: A-Z, a-Z, 0-9 and _
 cap: cap:

Notice the signal strength is 0% as you are not yet connected to the iSavi network. Select <Save & Apply>

Device Configuration	
General Setup Advanced Settings	
Status	4ode: Client SSID: iSavi-0006599 ISSID: AC:CF:23:2F:BC:70 Encryption: - Channel: 6 (2.437 GHz) Tx-Power: 0 dBm ignal: 0 dBm Noise: 0 dBm itrate: 0.0 Mbit/s Country: 00
Wireless network is enabled	Oisable
Channel	6 (2.437 GHz)
Transmit Power	20 dBm (100 mW)

.....

NOTE: If the signal status remains 0% or is blinking from 0% to 100% this typically means that the WPA Passphrase was entered incorrectly. Return to the Join Network Settings page and enter the correct password and <Submit>.

Once you've successfully connected to the iSavi, you'll see that the signal strength now registers greater than 0%.

	al settings of the radio hardware such as channel, transmit power or antenna selection which are shared among all re is multi-SSID capable). Per network settings like encryption or operation mode are grouped in the <i>Interface</i>
Device Configuration	
General Setup Advanced Settings	
Status	Mode: Client SSID: iSavi-0006599 BSSID: AC:CF:23:2F:BC:70 Encryption: WPA2 PSK (NONE) Channel: 6 (2.437 GHz) Tx-Power: 20 dBm Signal: -61 dBm Moise: 0 dBm Bitrate: 1.0 Mbit/s Country: 00
Wireless network is enabled	Disable
Channel	6 (2.437 CHz)
Transmit Power	20 dBm (100 mW)

Now that the Optimizer Voice and the iSavi are paired, you are protected against runaway airtime. In this state, you will use:

- IsatHub Control App to establish your data connection.
- XGate Satellite Email App or RedPort Email for sending/receiving email.
- XGate XWeb or RedPort Web Compression for web browsing.
- XGate Phone App for voice calls and SMS messaging.

NOTE: The Optimizer Voice ships pre-configured for use with XGate and RedPort Email service and XWeb Web Browsing service. These services are not included with the Optimizer and must be purchased separately. Contact your satellite service provider for details.

IMPORTANT - for iSavi units running firmware version 1.0.2 or earlier For Voice Users: Changing the Voice Protocol on iSavi (Not applicable if you are only going to use data over iSavi)

After you've successfully paired your RedPort Optimizer Voice and iSavi, you need to modify the voice codec in the iSavi in order to make voice calls over the RedPort Optimizer Voice.

- 1. Open up a web-browser on your smartphone, tablet, or computer and enter in this in the URL bar: <u>http://192.168.1.35</u>
- Login to the unit: Username: admin Password: 1234
- 3. Go to click on the Telephony tab > SIP Settings > Sip Server
- 4. Select the **g711u** codec

How to Start a Data Connection

No Service 중 Help	4:33 РМ IsatHub	≁ ∦ 72% ⊏ Settings	No Service 중 Help	4:33 РМ IsatHub	1 * 72% □ Settings		4:33 PM IsatHub	≁ ∦ 72% ■ Settings		4:34 PM IsatHub	+ ∦ 72% ■⊃ Settings
000	Data: not co r	nnected	000	Data Off		000	Data Off		000	Data On	
98% Battery	IsatHub not connected to Signal	47dB		Connect	data	_	Connect	: data		0 мв Used this sess Disconned	
	Connect to Pointing			IsatHub: conr Signal 51 dib 98% Battery	nected		IsatHub: con Signal 51db 98% Battery	inected		IsatHub: con Signal 62db 98% Battery	inected
<u></u>	Wi-Fi: conne wXa-153-217		(Wi-Fi: connec wXa-153-217			Wi-Fi: conne wXa-153-217		(Wi-Fi: connec wXa-153-217	
o ^o Conne	ction	Devices	° Connec	ction 🔒 D	evices	O Conne	ction	Devices	Conne	ection	Devices

A data connection is required for email and web browsing and RedPort VoIP Service.

Using your smartphone or tablet Settings, connect to the Optimizer Voice wireless network 'wxa-153-xxxx'.

Open the IsatHub Control App on your smartphone or tablet.

At first launch you must enter a username and password. The default credentials are:

username = admin password = 1234

Select <Connect to network> and wait for display of IsatHub: connected

Select <Connect data> and wait for display of Data On.

How to Stop a Data Connection

Open the IsatHub Control App on your smartphone or tablet.

Select <Disconnect data> and wait for display of Data Off.

No Service ♀ Help	4:34 PM IsatHub	✓ \$ 72% □ Settings	No Service ♀ Help	4:33 PM IsatHub	
000	Data On		000	Data Off	
	0 мв Used this ses	sion			
	Disconne	ct data		Connec	t data
	IsatHub: cor	anastad		IsatHub: cor	monted
	Signal 62db 98% Battery	Inected		Signal 51db 98% Battery	mecteu
(Wi-Fi: conne wXa-153-21		(Wi-Fi: conne wXa-153-21	
o ^o Conne	ection	Devices	o ^o Conne	ection	Devices

How to Send/Receive Email

A data connection is required for a successful email session.

Using your smartphone or tablet Settings, connect to the Optimizer Voice wireless network 'wxa-153-xxxx'.

Using the IsatHub Control App, start a data session (see How to Start a Data Session above)

Open the XGate App and send/receive email.

Close the data session when complete (see How to Stop a Data Session above)

Remember, email can be created and read offline. It is only necessary to initiate a Data Session when you are ready to connect to the mail server over your satellite link.

(Note: there is a 100kb billing increment for the iSavi – you may find it economical to leave your data connection open if you will use it again in short notice).

How to Web Browse

A data connection is required for a successful web browsing session.

Using your smartphone or tablet Settings, connect to the Optimizer Voice wireless network 'wxa-153-xxxx'.

Using the IsatHub Control App, start a data session (see How to Start a Data Session above)

Open the XGate App and select <Web> to start a web browsing session.

Close the data session when complete (see How to Stop a Data Session above)

How to Send/Receive SMS Messages

Using your smartphone or tablet Settings, connect to the Optimizer Voice wireless network 'wxa-153-xxxx'.

Using the IsatHub Control App, confirm that you are connected to the IsatHub:

Select <Connect to network> and wait for display of IsatHub: connected

No Service ᅙ	4:33 PM	┥ 🖇 72% 💶 🗎	No Service ᅙ	4:33 PM	┥ 🕴 72% 💶 🗎
Help	IsatHub	Settings	Help	IsatHub	Settings
000	Data: not cor	nnected	000	Data Off	
98% Battery	IsatHub not connected to Signal	47dB		Connec	t data
	Pointing	assist		IsatHub: co Signal 51 jib 98% Battery	nnected
(((~	Wi-Fi: conne wXa-153-217		<u></u>	Wi-Fi: conne wXa-153-21	
		Devices	o ^o Conne	ction	Devices

Open the XGate Phone App. Select <Chat> to send an SMS message or to view the SMS message received.

Note: Only one SMS message can be sent at a time. Standard SMS message rates apply. (For multi-users see Multi-User Voice and SMS with RedPort VoIP service below)

How to Make/Receive Voice Calls

Using your smartphone or tablet Settings, connect to the Optimizer Voice wireless network 'wxa-153-xxxx'.

Using the IsatHub Control App, confirm that you are connected to the IsatHub Network:



Select <Connect to network> and wait for display of IsatHub: connected

Open the XGate Phone App to make and receive calls. Note: standard voice calling rates apply.

Optimizer Voice Extension Setup

Incoming calls will ring on those extensions with Ring enabled in the Optimizer Voice user interface on the Services > VOIP PBX > Extensions screen:

	11100	inte	t Access Web Con	npression and Filtering	RedPort Ema	ail SMS GPS Tracking WiFi Extender GPS/NMEA Repeater	VOIP PBX PP
xter	nsio	ns	CDR Logs V	obal Activation Sai	lor FBB		
ter	nsid	ons					
	1314	0113					
SIP	Ex	ten	sions				
Ring	g S	MS	Extension	Password	Caller ID	Description	
			Value larger than 200	SIP extension password	Free text	You may enter a description here for your reference	
☑		2	201	1234	201	Captain line	💌 Delete
			202	1234	202	Crew line 1	🗙 Delete
			203	1234	203	Crew line 2	× Delete
			204	1234	204	Crew line 3	× Delete
ta A	١dd	1					
		,					

To enable Ring or SMS on an extension simply check the box for the service you want enabled.

When Ring is checked, the smartphone configured with the corresponding Extension will Ring with every incoming call.

When SMS is checked, that smartphone will receive every incoming SMS message.

Multi-User Voice and SMS with Optional RedPort VoIP Service

Why use the RedPort VoIP service?

Out of the box, the iSavi allows one phone call or one SMS message at a time. Phone calls via the smartphone app are standard circuit switch (PSTN) calls, not VoIP, therefore standard satellite airtime rates apply.

With the RedPort VoIP service you can make inexpensive outbound VoIP calls at a significant price reduction over standard satellite airtime fees. You have the choice of enabling a standard US land-based phone number so that land-based callers can call you quickly and easily.

Up to four people can be on calls or sending SMS messages at the same time. 15 minutes of talk time = about 1 Mbyte of data per channel (SIP extension).

Call payment methods include:

- Prepaid pincodes to help you stay on budget and/or support revenue generation. Pincodes can be given away or sold to crew/guests.
- Postpaid lines are billed monthly for actual usage.
- No charge for calls and text among local SIP extensions when on the Optimizer Voice WiFi network.

How to Enable the RedPort VoIP Service

Contact your satellite service provider to purchase the RedPort VoIP service.

When the service is activated you will be given a "Key". This key is a long alpha-numeric string that must be entered into the Optimizer Voice user interface.

Login to the Optimizer Voice user interface and select Services > VOIP PBX > Vobal Activation.

Home Se	rvices	Status	System	Network	Sta	atistics	Logout					
Crew Interne	t Access	Web	Compression	n and Filter	ring	RedPort E	mail SMS	GPS Tracking	WiFi Extender	GPS/NMEA Repeater	VOIP PBX	PPP
Extensions	CDR	Logs	Vobal Acti	ivation	Sailor	FBB						_
Vobal Dec	oder											
Activation	Кеу											
							Enter		xactly as giver recommended	n to you. Copy/Pas ⊣	ste	
									recommended	d.		
								tion key must be er vider for a key.	netered to use this s	ervice. Additional charges	will apply. Pleas	e

Enter the Key and select <Save & Apply>

rew Internet Access Web	Compression and Filt	1	ail SMS	GPS Tracking	WiFi Extender	GPS/NMEA Repeater	VOIP PBX	PPP
xtensions CDR Logs	Vobal Activation	Sailor FBB	_	_	_		_	-
bal Decoder								
Activation Key			dGVkX1+Ll azUi 7Fdl		xWkpT/1CT2eBo	2uPS6VVRcgsUHL1ZSc	SNJK9IKBmL6	5h
		0010	abor /rar					
								1
				on key must be er der for a key.	etered to use this	service. Additional charges	s will apply. Plea	ase
		conta			etered to use this	service. Additional charges	s will apply. Plea	ase
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UID DID		conta 2133	t your provid		etered to use this	service. Additional charges	s will apply. Plea	ise

With RedPort VoIP service activated, the new RedPort VoIP telephone number is displayed.

Once enabled, configure the SIP extensions for Ring and/or SMS by selecting the checkbox next to the SIP extension.

Select the payment method of each SIP extension (prepaid or postpaid). By default, Line 1 is always Postpaid.

On this same page, you can also:

- change the SIP extension password
- change the outgoing CallerID display
- enter a description for your reference

Но	me	Ser	vices	Status	System	Network	Statistics	Logout						
Cr	ew In	terne	t Access	Web	Compression	and Filteri	ng RedPort Ema	ail SMS	GPS Tracking	WiFi Extender	GPS/NMEA Repeater	VOIP PBX	PPP	
Ex	tens	ions	CDR	Logs	Vobal Activ	vation S	ailor FBB	_	_	_		_	_	
Ext	Extensions													
A	Analog RJ-11 Telephone													
	Payment Mode						postpaid			T				
	SIP Extensions													
			sions											
F	Ring	SMS	Paym Meth		Extension Value larger the		Password extension password	Caller ID Free text	You r		r iption Ion here for your reference			
			postpaid	•	201	123	4	201	Captain line			💌 D	elete	
			prepaid	•	202	12	4	John	John's smart	phone		💌 D	elete	
		☑	prepaid	•	203	123	4	Mary	Mary's smar	tphone		🗶 D	elete	
		☑	postpaid	_	204	12	4	Bill	Bill's smartp	hone		🗶 D	elete	
l	🗋 Ad	d												
·														
											🔕 Reset 🧧	Save 🚺 Sav	ve & Apply	

In the example above, when an incoming call arrives, only the phones of the Captain, John, and Mary will ring. Incoming SMS messages will appear on the phones of the Captain, Mary, and Bill.

When the configuration of the SIP extensions is complete, select <Save & Apply>

Captive Portal Setup and Use

With the Captive Portal enabled, you can generate PIN-codes that can be given away or sold to control web access. This allows controlled access to the Internet by requiring users to enter pincodes before being granted permission to browse the web. In addition, the speed of access can be restricted and/or the duration or timing of the session. User sessions are logged in Call Data Records (CDR) for tracking the amount of time on the service and the amount of data transferred.