# BB@work





# business

## user manual

### mobily... my world, my choice







## Preface

This manual provides information related to the installation, operation, and application of this device. The individual reading this manual is presumed to have a basic understanding of telecommunications terminology and concepts.

If you find the product to be broken or malfunctioning, please contact technical support for immediate service by email at technicalsupport@ netcomm.com.au

For product update, new product release, manual revision, or software upgrades, please visit our website at www.netcomm.com.au

#### Important Safety Instructions

With reference to unpacking, installation, use and maintenance of your electronic device, the following basic guidelines are recommended:

- Do not use or install this product near water, to avoid fire or shock hazard. For example, near a bathtub, kitchen sink or laundry tub, or near a swimming pool. Also, do not expose the equipment to rain or damp areas (e.g. a wet basement).
- Do not connect the power supply cord on elevated surfaces. Allow it to lie freely. There should be no obstructions in its path and no heavy items should be placed on the cord. In addition, do not walk on, step on or mistreat the cord.
- · Use only the power cord and adapter that are shipped with this device.
- To safeguard the equipment against overheating, make sure that all openings in the unit that offer exposure to air are not blocked.
- Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightening. Also, do not use the telephone to report a gas leak in the vicinity of the leak.
- · Never install telephone wiring during stormy weather conditions.

### 

· Disconnect the power line from the device before servicing.

#### Copyright

Copyright©2012 NetComm Limited. All rights reserved. The information contained herein is proprietary to NetComm Limited. No part of this document may be translated, transcribed, reproduced, in any form, or by any means without prior written consent of NetComm Limited NOTE: This document is subject to change without notice.

#### Save Our Environment

When this equipment has reached the end of its useful life, it must be taken to a recycling centre and processed separate from domestic waste.

The cardboard box, the plastic contained in the packaging, and the parts that make up this router can be recycled in accordance with regionally established regulations. Never dispose of this electronic equipment along with your household waste. You may be subject to penalties or sanctions under the law. Instead, ask for disposal instructions from your municipal government.

Please be responsible and protect our environment.

## Table of Contents

2 Introduction	5
2.2 Package Contents 2.3 LED Indicators 2.4 Panels	5 6 7
3. Quick Setup	<b>9</b>
4. Default Settings 4.1 Restore Factory Default Settings 4.2 WFB USER INTERFACE	<b>.11</b> 11
6. 3G Settings 6.1 Setup 6.2 Signal Selection	<b>.16</b> 16
6.3 PIN Configuration	16 <b>.20</b>
7.1 Setup 7.2 Security	20 21
7.4 MAC Filter. 7.5 Wirdses Bridge.	24
7.6 Station Into	25 .27
8.1 Device Settings 8.2 SNMP 8.3 SNTP	27 28 29
8.4 Access Control 8.5 Save/Reboot	29
9 Advanced Settings 9.1 LAN 9.2 NAT	<b>. 32</b> 32 33
9.3 Security 9.4 Parental Control 9.5 Routing	35 37 38
9.6 DNS 9.7 Print Server 9.8 USB Storage	39 40 40
10 Status	<b>. 42</b>
10.2 System Log 10.3 3G Network 10.4 Statistics	43 44 45
10.5 Route	46 46 46
10.8 PING	46 <b>. 48</b>
11.1 For Windows Vista/7 11.2 For MAC OSX	48
12 Appendix B: Samba Server	<b>. 51</b> 51 51

Introduction

## 2 Introduction

Designed to keep up with the world's fastest networks, this DC-HSPA+ device is capable of downlink speeds of up to 42Mbps. With wireless N, this device also provides multiple wireless devices with local wireless speeds of up to 300Mbps. Its stylish vertical design incorporates a unique cable management design hiding up to 5 cables.

## 2.1 Features

- Combines DC-HSPA+, Wireless 11n 300Mbps, 4 Ethernet ports
- Worldwide coverage through Quad-band HSUPA/HSDPA/UMTS (850 / 900 / 1900 / 2100 Mhz), quad-band EDGE/GSM (850 / 900 / 1800 / 1900 Mhz)
- Integrated 802.11n AP (backward compatible with 802.11b/g)
- UPnP
- WEP/WPA/WPA2 and 802.1x
- MAC address and IP filtering
- Static route functions
- DNS Proxy
- NAT/PAT
- Embedded Sierra Wireless MC8801 multimode HSUPA/HSDPA/UMTS/EDGE/GPRS/GSM module
- CLI command interface
- 2 x USB ports (for Print server functionality or accessing USB Storage)

## 2.2 Package Contents

- Your package contains the following:
- Mobily BB@work
- Printed Quick Start Guide
- CD (Containing User Guide)
- Ethernet Cable
- Wireless Security Card
- Power Supply
- Warranty sheet



## 2.3 LED Indicators

The LED indicators are explained in the table below.

LED	Icon	Color	Mode	Function
High	High ,))		On	High signal strength
			Off	No activity, Router powered off or on other signal strength
Med	) Blue		On	Medium signal strength
			Off	No activity. The Router is powered off or is currently using another signal strength
Low	>	Blue	On	Low signal strength
			Off	No activity. The Router is powered off or is currently using another signal strength
3G	3G ))	Blue	On	Connection established with the 3G network
			Off	Either there is no activity or the Router is powered off
			Blink	Connecting with 3G network
2G	2G))	Blue	On	Connection established with the 2G network
			Off	Either there is no activity or the Router is powered off
			Blink	Connecting with 2G network
LAN 1-4	LAN 1-4		On	Powered device connected to the associated LAN port (includes devices with Wake-on-LAN capability where a slight voltage is supplied to an Ethernet connection)
			Off	No device connected or Connected device is off
			Blink	LAN activity present (traffic in either direction)
Internet	www	Blue	On	Internet connection established
	Ŷ		Off	No connection to the internet or Router powered off
			Blink	Data is currently being transmitted through the Internet connection
Wi-Fi	(((•p)))	Blue	On	Local Wi-Fi access to the Router is enabled and working
	V. 1.7		Off	Local Wi-Fi access to the Router is disabled
			Blink	Data being transmitted or received over Wi-Fi.
Power	ch	Blue	On	Power on
	$\cup$		Off	Power off

## 2.4 Panels

The rear and side panels shown below contain the ports for data and power connections.



- 1. USIM card slot
- 2. External 3G MS-147 Antenna Connector (Optional)
- 3. Four RJ-45 Ethernet LAN ports
- 4. Reset button
- 5. Power jack for DC power input (12VDC / 1.5A).
- 6. USB printer/hard drive
- 7. USB printer/hard drive

**Quick Setup** 

## 3. Quick Setup

## 3.1 Setup Procedure

These steps explain how to quickly setup your BB@work:

- 1. Insert your SIM card (until you hear a click) into the USIM slot on the rear of the Router.
- 2. Connect the yellow Ethernet cable to one of the yellow LAN ports found at the back of the Router.
- 3. Connect the other end of the yellow networking cable to the Ethernet port on your computer.
- 4. Connect the power adapter to the Power socket on the back of the Router.
- 5. Plug the power adapter into a wall socket and press the power button into the ON position.
- 6. Configure the Router through the Web User Interface (WUI).
- 7. Save the Router configuration and reboot .

Default Settings

## 4. Default Settings

#### LAN (Management)

Static IP Address: 192.168.1.X Subnet Mask: 255.255.255.0 Default Gateway: 192.168.1.1 WAN (Internet) WAN mode: DHCP Wireless

SSID: Refer to your wireless security card Channel: Auto Security: WPA-PSK WEP Key: Refer to your wireless security card

#### Interface Access

Username: admin Password: admin

## 4.1 Restore Factory Default Settings

Restoring factory defaults will reset the BB@work to its factory default configuration. Occasions may present themselves where you need to restore the factory defaults on your BB@work such as:

- You have lost your username and password and are unable to login to the web configuration page;
- You have purchased your BB@work from someone else and need to reconfigure the device to work with your Mobily service;
- You are asked to perform a factory reset by support staff.

In order to restore your BB@work to its factory default settings, please follow these steps:

- Ensure that your BB@work is powered on (for at least 10 seconds);
- Use a paper clip or a pencil tip to depress the reset button for ten seconds and release. At this point, the reset is in progress. Do not power off the unit at this point;
- When the indicator lights return to steady blue, the reset is complete. The default settings are now restored. The entire process takes about 45 seconds to complete;
- Once you have reset your BB@work to its default settings you will be able to access the device's configuration web interface using http://192.168.1.1 with username 'admin' and password 'admin';



## 4.2 WEB USER INTERFACE

#### What can you do from here?

By logging into the web user interface, you are able to configure your BB@work with a wide array of basic and advanced settings. From setting wireless security, to backing up your routers settings, uploading new firmware and setting parental controls, the web user interface is a handy tool for personalizing your device to maximize its potential. Read on for a more advanced description on all elements of the web user interface.

Logging into the web user interface

To login to the web user interface, follow the steps below:

#### NOTE: The default settings can be found in section 4 - Default Settings.

1. Open a web browser and enter the default IP address for the Router in the web address field. In this case http://192.168.1.1 NOTE: For local administration (i.e. LAN access), the PC running the browser must be attached to the Ethernet port of the router though not necessarily directly to the device. For remote access, use the WAN IP address shown on the WUI Homepage screen and login with remote username and password.

2. A dialog box will appear, as illustrated below. Enter the default username and password of admin.

Click OK to continue.

Authenticatio	on Required	×
?	A username and password are being requested by http://192.168.1.1. The site says: "3G42WM DC-HSPA+ WIFI Router"	
User Name:		
Password:		-
	OK Cancel	

User Name – admin

Password – admin

NOTE: The login password can be changed later (see Access Control > Passwords)

## BASIC



## 5. Basic - Home



The web user interface (WUI) is divided into two window panels, the main menu (on the top) and the display screen (on the bottom). The main menu has the following options: Basic, 3G Settings, Wi-Fi, Management, Advanced and Status.

Selecting one of these options will open a submenu with more options. Basic is discussed below while subsequent chapters introduce the other main menu selections.

NOTE: The menu options available within the web user interface are based upon the device configuration and user privileges (i.e. local or remote).

The following table provides further details

Field	Description
Model Name	Model number of your device
Board ID	The unique number of the board inside your device
Bootloader (CFE) Version	The version of the bootloader
Wireless Driver Version	The current version of wireless driver being used by your device
MAC Address	The MAC address of the network interface
Serial Number	The serial number of the unit
Device Info For 3G	
Network	The name of your 3G network
Link	The status of your 3G connection
Mode	The radio access technique currently used to enable internet access. It can be HSUPA, HSDPA, UMTS,
	EDGE, GPRS or Disconnected.
Signal Strength	The mobile network (UMTS) signal quality available at the device location. This signal quality affects
	the performance of the unit. If two or more bars are green, the connection is usually acceptable.
SIM Info	Shows the SIM card status on the device.
Connection Status	
LAN IP Address	Shows the IP address for LAN interface.
WAN IP Address	Shows the IP address for WAN interface.
Primary DNS Server	Shows the IP address of the primary DNS server.
Secondary DNS Server	Shows the IP address of the secondary DNS server.
Date/Time	The time according to the device's internal clock

**3G Settings** 



## 6. 3G Settings

## 6.1 Setup

This page allows you to select your 3G service settings according to predefined or custom profiles. Setup instructions are provided in the following sections for your assistance.

Your 3G Service Provider will provide the information required to complete the first time setup instructions below. This includes profile, username and password. Only complete those steps for which you have information and skip the others.

- 1. If your SIM card is not inserted into the Router, then do so now.
- 2. Select the appropriate 3G Settings Profile. You can select either mobily Prepaid or mobily Postpaid. Alternatively, enter a custom connection profile by clicking on the "Modify Profiles" link, then click the "Add" button and enter the details supplied by your 3G provider.



- 3. Select to turn IP compression and Data compression to be On or Off. If you are unsure or have no preference, leave it as the default value.
- 4. Enter the MTU rate. If you are unsure or have no preference, leave it as the default value
- 5. Click the Save button to save the new settings.
- 6. Press the Connect button to connect to Internet. The Device Info for the 3G network status box in the WUI Basic screen should indicate an active connection.

## 6.2 Signal Selection

By default, a stable signal is obtained from the antennas built into the BB@work. To use an external 3G antenna, please connect it to the Antenna Connector next to the Power Input on the back of the router. The router will automatically use the external antenna connector when an external antenna is connected to it.



## 6.3 PIN Configuration

This screen allows for changes to the 3G SIM card PIN code protection settings. NOTE: If you have entered the incorrect PIN 3 times, your SIM card will be locked for your security. Please call Mobily for assistance.

#### 6.3.1 PIN Code Protection

PIN code protection prevents the use of a SIM card by unauthorized persons. To use the 3G internet service with this router however, the PIN code protection should be disabled. If the SIM card inserted into the router is locked with a PIN code, the web user interface will display the following screen after first login.

Please input the PIN code, select Remember PIN code as Yes and click Apply.

The inserted SIM card needs PIN code to unlock. F Remember PIN is Yes, the correct PIN code will be remember by the Router unless reset to default. F Remember PIN is No, users need to input PIN code each time after the Router reboots.					
Please enter the PIN code.					
Enter PPI Code PPI Code Confini PPI Code Confini PPI Code Total Tense remaring:	Analis				

#### **PIN Lock Off**

If you wish to always connect to the Internet using a PIN locked SIM card, you should first turn PIN code protection off. Please click on PIN Configuration from the menu.

BASIC	3G SETTINGS	WOFI	MANAGEMENT	ADVANCED SETTINGS	STATUS
HSPA/36 Setting	> PIN Configuration				
PDN Code Pro PDN Lock PDN Code Confirm PDN Code Remember PDN Code Times remaining:	ection 				
C PEN Code Ch Old PEN Code: New PEN Code: Confirm PEN Code Times remaining:	anga				
			Apply		

Select Change PIN Code Protection. Un-tick Enable PIN Lock and enter the PIN code twice. Please keep in mind you only have 3 attempts before your SIM card is locked. The Times remaining shows how many attempts are left. Contact Mobily if you require assistance. Afterwards, click Apply. The following dialog box should now appear.



#### **PIN Lock On**

After you are finished using your SIM card for Internet access, you may wish to lock the SIM card again. In this case, first go to the PIN configuration screen, as shown below.

BASIC	3G SETTINGS	WIFI	MANAGEMENT	ADVANCED SETTINGS	STATUS
HSPA/36 Settings	> PIN Configuration				
PIN Code Prof	edian				
PINLock					
PIN Code:					
Confirm PIN Codes	****				
Remember PDN code	Yes 💌				
Times remaining:	3				
C P2N Code Cha	191				
Old PIN Code:					
New PIN Code:					
Confirm PIN Code:					
Times remaining:	3				
			Apply		

Select Change PIN Code Protection. Tick Enable PIN Lock, enter the PIN code twice. You can set Remember PIN code to yes so you don't need to input the PIN code every time when the gateway turns on with this SIM inserted. Then click Apply. After you do so, the following dialog box should appear.



You can now return your SIM card to your cellular phone or other mobile device.



#### 6.3.2 PIN Code Change

If you wish to change your PIN code for greater security, go to the previous section and follow the procedure listed under PIN Lock On. After locking the SIM card, select PIN Code Change and enter your old and new PIN codes in the fields provided. Keep in mind you only have 3 attempts before your SIM card is locked. The Times remaining shows how many attempts left. Contact Mobily if you require assistance. Afterwards, click apply to activate the change.

PIN Code Cha	ange
Old PIN Code:	••••
New PIN Code:	••••
Confirm PIN Code:	••••
Times remaining:	З

If you forget to turn on PIN lock protection before changing your PIN, you will see this dialog box as a helpful reminder.

The pag	e at http://192.168.1.1 says:	×
1	You need to enable SIM lock first	
	OK	

If your PIN code change request was successful the following dialog box will display.

The page	e at http://192.168.1.1 says:	×
1	You have successfully changed the PIN code	
	ОК	

WIFI



## 7. WIFI

## 7.1 Setup

The WiFi submenu provides access to the Wireless Local Area Network (WLAN) configuration settings including:

Apply/Save

- Wireless network name (SSID)
- Channel restrictions (based on country)
- Security
- Access point or bridging behaviour
- Station information

This screen allows you to configure basic features of the wireless LAN interface. You can enable or disable the wireless LAN interface, hide the network from active scans, set the wireless network name (also known as the SSID) and restrict the channel set based on country requirements. The Wireless Guest Network function adds extra networking security when connecting to remote hosts.

	3G SETTINGS	; v	IFI	MANAGEMENT	ADVANCED SETTINGS STATUS	
Wi-Fi > S	ettings					
This page i restrict the Click "App	allows you to configure your channel set based on countr ky/Save <sup>*</sup> to configure the based on country of the based on th	Wi-Fi settings. Yo y requirements. ic wireless option	u can enable or disable I s.	the wireless LAN interface, N	e the network from active scans, set the wireless network	name (also known as SSID)
ε	Inable WirPi					
Ε	Enable SSID Broadcast					
	Clients Isolation					
provides er	innanced security by requirin	g wereass users to	enter the network harry	e manually when creating a v	reess nework prome on meir computers.	
SSID: BSSID:	MOBD.78826 00:14:28:83:C1:68					
SSID: BSSID: Country:	MOBILY8825 00:14:28:83:C1:68 SAUDI APABIA					
SSID: BSSID: Country: Max Clantr:	MC68L/1825 00:14:28:83:CL68 SAUDI ARABIA 16			×		
SSID: BSSID: Country: Max Clients:	MOBL/1825 00:14/28/83-CL68 SAUDI ARABIA 16	_		×		
SSID: BSSID: Country: Max Clients: Wireless	00:14/28/83:C1:88 SAUDI APABIA 16 Geest/Virtual Access Pei	miss		×		
SSID: BSSID: Country: Max Clients: Wireless	paces, reces 00:14/28/19/CL:68 SAUDI APABIA 16 Geest/Wetval Access Pei 551D	als:	olate Man BsstD	×		
SSID: BSSID: Country: Max Clents: Wireless Encloted	Process. verses 00.5A228183-CL688 SAUDI APABIA 16 Genesit/Virtual Access Peil SSID Fell_Guest	ntsa tirádan G	olate Man BSSID Feats Clients 16 14(A	×		
SSID: BSSID: Country: Max Clents: Wireless Entitled	process.vecss.           00.1A228/83/CL68           SAUDI APABIA           16           Guest/Virbual Access Peil           SSID           #M_Suppl.1           #M_Suppl.1	nts: Stadden Ci	olate Mani Beats Cheats UssiD It NA	×		

Option	Description
Enable WiFi	A checkbox that enables or disables the wireless LAN interface. The default is Enable WiFi.
Enable SSID Broadcast	Deselect Enable SSID Broadcast to protect the access point from detection by wireless network scans.
	To check AP status in Windows XP, open Network Connections from the Start Menu and select View Available Network Connections. If the access point is hidden, it will not be listed there. To connect a client to a hidden access point, the station must add the access point manually to its wireless configuration.
Clients Isolation	<ol> <li>Prevents clients PC from seeing one another in My Network Places or Network Neighborhood.</li> <li>Prevents one wireless client communicating with another wireless client.</li> </ol>
SSID [1-32 characters]	Sets the wireless network name. SSID stands for Service Set Identifier. All stations must be configured with the correct SSID to access the WLAN. If the SSID does not match, that user will not be granted access. The naming conventions are: Minimum number of characters:
	1, maximum number of characters: 32.
BSSID	The BSSID is a 48bit identity used to identify a particular BSS (Basic Service Set) within an area. In Infrastructure BSS networks, the BSSID is the MAC (Medium Access Control) address of the AP (Access Point) and in Independent BSS or ad hoc networks, the BSSID is generated randomly.
Country	A drop-down menu that permits worldwide and specific national settings. Each county listed in the menu enforces specific regulations limiting channel range.
Wireless Guest Network	This router supports multiple SSIDs called Guest SSIDs or Virtual Access Points. To enable one or more Guest SSIDs select the radio buttons under the Enable heading. To hide a Guest SSID, select its radio button under the Hidden heading.
	Do the same for Isolate Client. For a description of this function, see the entry for "Client Isolation" in this table. Similarly, for Max Clients and BSSID headings, consult the matching entries in this table. NOTE: Remote wireless hosts are unable to scan Guest SSIDs.

## 7.2 Security

This router includes a number of options to help provide a secure connection to the Wi-Fi Network.

Security features include:

- WEP / WPA / WPA2 data encryption
- MAC address IP filtering

You can authenticate or encrypt your service on the Wi–Fi Protected Access algorithm, which provides protection against unauthorized access such as eavesdropping.

The following screen appears when Security is selected. The Security page allows you to configure security features of your router's WLAN interface. You can set the network authentication method, select data encryption, specify whether a network key is required to authenticate to this wireless network and specify the encryption strength.

BASIC		3G SETTINGS	WIFI		MANAGEMENT	ADVANCED SETTINGS	STATUS	
	Wi-Fi > Security							
	This page allows you You may setup confi	i to configure secur guration manually	ity features of the wireless LAN interface.					
	Manual Setup AP							
	You can set the netw specify whether a ne Click "Apply/Save" v	rork authentication twork key is requir vhen done.	method, selecting data ed to authenticate to t	encryption, his wireless network	and specify the encryption strer	igth.		
	Select SSID:		MOBILY0026	·				
	Network Authenticat	ion:	Mixed WPA2/W	/PA-PSK 💌				
	WPA Pre-Shared Key	y:	*****	Click here to displ	av			
	WPA Group Rekey I	interval:	0					
	WPA Encryption:		TKIP+AES 💌					
	WEP Encryption:		Disabled 💌					
			Apply/Save					

Click Apply/Save to configure the wireless security options.

Option	Description
Select SSID	The BB@work is able to handle multiple wireless networks. The pull down menu enables you to select which wireless network the security settings will be applied to.
Network Authentication	This option is used for authentication to the wireless network. Each authentication type has its own settings. For example, selecting 802.1X authentication will reveal the RADIUS Server IP address, Port and key fields.
WEP Encryption	This option indicates whether data sent over the network is encrypted. The same network key is used for data encryption and network authentication. Whilst four network keys can be defined, only one can be used at any one time.
WPA-PSK / WPA2-PSK	A new type of wireless security that gives a more secure network when compared to WEP. The security key needs to be more than 8 characters and less than 63 characters and it can be any combination of letters and numbers. This is the default wireless security in use on the router. Default value is listed on your security card
WPA	WPA (Wi-Fi Protected Access) is suitable for enterprise applications. It must be used in conjunction with an authentication server such as RADIUS to provide centralized access control and management.
Encryption Strength	The strength/length of your wireless security key.
Current Network Key	The current network key that is active. You have the choice of setting up to 4 different wireless security keys
Network Key 1	The value of network key 1.
Network Key 2	The value of network key 2
Network Key 3	The value of network key 3
Network key 4	The value of network key 4



## 7.3 Configuration

This screen allows you to control the following advanced features of the Wireless Local Area Network (WLAN) interface:

- Select the channel which you wish to operate from
- Force the transmission rate to a particular speed
- Set the fragmentation threshold
- Set the RTS threshold
- Set the wake-up interval for clients in power-save mode
- Set the beacon interval for the access point
- Set XpressTM mode
- Program short or long preambles

Click Apply/Save to set the advanced wireless configuration.



Option	Description
Band	The frequency of the wireless network. 2.4GHz is standard.
Channel	Allows selection of a specific channel (1-14) or Auto mode.
Auto Channel Timer	The Auto Channel times the length it takes to scan in minutes.
802.11n/EWC	An equipment interoperability standard setting based on IEEE 802.11n Draft 2.0 and Enhanced Wireless Consortium (EWC)
Bandwidth	The drop-down menu specifies the following bandwidth: 20MHz in 2.4G Band and 40 MHz in 5G Band, 20MHz in both bands and 40MHz in both bands
Control Sideband	This is available for 40MHz. Drop-down menu allows selecting upper sideband or lower sideband
802.11n Rate	Drop-down menu specifies the following fixed rates. The maximum rate for bandwidth, 20MHz, is 130Mbps and the maximum bandwidth, 40MHz, is 270Mbps
802.11n Protection	Turn off for maximized throughput Turn on for greater security
Support 802.11n Client Only	The option to provide wireless Internet access only to clients who are operating at 802.11n speeds
54g Rate	In Auto (default) mode, your Router uses the maximum data rate and lowers the data rate dependent on the signal strength. The appropriate setting is dependent on signal strength. Other rates are discrete values between 1 to 54 Mbps.
Multicast rate	Setting for multicast packet transmission rate. (1–54 Mbps)
Basic Rate	Sets basic transmission rate.
Fragment Threshold	A threshold (in bytes) determines whether packets will be fragmented and at what size. Packets that exceed the fragmentation threshold of an 802.11 WLAN will be split into smaller units suitable for the circuit size. Packets smaller than the specified fragmentation threshold value however are not fragmented. Values between 256 and 2346 can be entered but should remain at a default setting of 2346. Setting the Fragmentation Threshold too low may result in poor performance.
RTS Threshold	Request To Send (RTS) specifies the packet size that exceeds the specified RTS threshold, which then triggers the RTS/CTS mechanism. Smaller packets are sent without using RTS/CTS. The default setting of 2347 (max length) will disables the RTS Threshold.
DTIM Interval	Delivery Traffic Indication Message (DTIM) is also known as Beacon Rate. The entry range is a value between 1 and 65535. A DTIM is a countdown variable that informs clients of the next window for listening to broadcast and multicast messages. When the AP has buffered broadcast or multicast messages for associated clients, it sends the next DTIM with a DTIM Interval value. AP Clients hear the beacons and awaken to receive the broadcast and multicast messages. The default is 1.
Beacon Interval	The amount of time between beacon transmissions in is milliseconds. The default is 100 ms and the acceptable range is 1 – 65535. The beacon transmissions identify the presence of an access point. By default, network devices passively scan all RF channels listening for beacons coming from access points. Before a station enters power save mode, the station needs the beacon interval to know when to wake up to receive the beacon.
Global Max Clients	Here you have the option of setting the limit of the number of clients who can connect to your wireless network
Xpress Technology	Broadcom's Xpress <sup>™</sup> Technology is compliant with draft specifications of two planned wireless industry standards. It has been designed to improve wireless network efficiency. Default is disabled
Transmit Power	The option of decreasing the transmitting power of your wireless signal



## 7.4 MAC Filter

This screen appears when Media Access Control (MAC) Filter is selected. This option allows access to be restricted based upon the unique 48bit MAC address.

To add a MAC Address filter, click the Add button shown below.

To delete a filter, select it from the table below and click the Remove button.

	BASIC 3G SETTINGS WIFI MANAGEMENT ADVANCED SETTINGS STATUS
	Wi-Fi > MAC Filter
	Select SSID: MOBILY0026
	MAC Restrict Mode: © Disabled © Allow © Deny
	MAC Address Remove
	Add Remove
Option	Description
MAC Restrict Mode	Disabled – Disables MAC filtering
	Allow – Permits access for the specified MAC addresses.
	NOTE: Add a wireless device's MAC address before clicking the Allow radio button or else you will need to connect to the Router's web user interface using the supplied yellow Ethernet cable and add the wireless device's MAC address.
	Deny – Rejects access for the specified MAC addresses
MAC Address	Lists the MAC addresses subject to the MAC Restrict Mode. The Add button prompts an entry field
	that requires you type in a MAC address in a two-character, 6-byte convention: xx:xx:xx:xx:xx:xx
	where xx are hexadecimal numbers. A maximum of 60 MAC addresses can be added.

Enter the MAC address on the screen below and click Apply/Save.

BASIC	3G SETTINGS	WIFI	MANAGEMENT	ADVANCED SETTINGS	STATUS
Wi-Fi > MAC Filte	er.				
Enter the MAC address and click "Apply/Save" to add the MAC address to the wireless MAC address filters.					
MAC Address:	(xx xx	xcxxxxxx)			

Apply/Save

### 7.5 Wireless Bridge

The following screen appears when selecting Wireless Bridge, and goes into a detailed explanation of how to configure wireless bridge features of the wireless LAN interface.

Click Apply/Save to implement new configuration settings.

BASIC	3G SETTINGS	WIFI	MANAGEMENT	ADVANCED SETTINGS STATUS
Wi-Fi > Dridge				
This page allows Selecting Access I enables wineless b Click "Nefresh" to Click "Apply/Sav	ou to configure wireless bridge foint enables access point funct ridge restriction. Only those bri update the remote bridges. Wa If to configure the wireless brid	Features of the wireless LAT onality. Wireless bridge fun dges selected in Remote Brio It for few seconds to update ge options.	I interface. You can select Wireless trionality will till be available and w iges will be granted access.	: Bridge (also known as Wireless Distribution System) to disable access point fund wielest stations will be able to associate to the AP. Selecting Enabled or Enabled()
AP Mode:	E	Access Point		
Bridge Restrict:	[	Enabled 💌		
Remote Bridges I	NAC Address:		001010000000	0
	E			
			Referth Report For	

Option	Description
AP Mode	Selecting Wireless Bridge (Wireless Distribution System) disables Access Point (AP)
	functionality while selecting Access Point enables AP functionality. In Access Point mode,
	wireless bridge functionality will still be available and wireless stations will be able to
	associate to the AP.
Bridge Restrict	Selecting Disabled in Bridge Restrict disables Wireless Bridge restriction, which means
	that any wireless bridge will be granted access. Selecting Enabled or Enabled (Scan) allows
	wireless bridge restriction. Only those bridges selected in Remote Bridges will be granted
	access. Click Refresh to update the station list when Bridge Restrict is enabled.

### 7.6 Station Info

The following screen appears when you select Station Info, and shows authenticated wireless stations and their status. Click the Refresh button to update the list of stations in the WLAN.

BASIC	3G SETTINGS	WIFI	MANAGEMENT	ADVANCED SETTINGS	STATUS			
Wi-Fi > Station Inf	Wi-Fi > Station Info							
This page shows aut	This page shows authenticated wireless stations and their status.							
MAC Associated	Authorized SSID Interf	ace						

Refresh

Option	Description
MAC	The MAC address of any connected client
Associated	Lists all the stations that are associated with the Access Point, along with the amount of time since packets were transferred to and from each station. If a station is idle for too long, it is removed from this list.
Authorized	Lists those devices with authorized access.
SSID	The SSID of your wireless network
Interface	The wireless interface being used to connect

Management

## 8. Management

## 8.1 Device Settings

The Device Settings screens allow you to backup, retrieve and restore the default settings of your Router. It also provides a function for you to update your Routers firmware.

#### 8.1.1 Backup

The following screen appears when Backup is selected. Click the Backup Settings button to save the current configuration settings.

You will be prompted to choose the location on your PC to save the backed up configuration file to.

BASIC			MANAGEMENT	ADVANCED SETTINGS	
Manag	ement > Device Settings > Backup				
Backup	Router configurations. You may save your	Router configurations to a file o	n your PC.		
			Backup Settings		

#### 8.1.2 Update

The following screen appears when selecting Update from the submenu. By clicking on the Browse button, you can locate a previously saved backup configuration file as the configuration backup file to use to update your BB@works configuration. Click on the Update settings to load it.

BASIC	3G SETTINGS	WIFI	MANAGEMENT	ADVANCED SETTINGS	STATUS			
Management > D	evice Settings > Update Save	d Settings						
Update Router's set	Update Router's settings. You may update your Router settings using your saved files.							
NOTE: This page is	NOTE: This page is NOT for manually update firmware to router. To update firmware, please go to Management > Device Settings > Update Firmware.							
Settings File Name:	Browse							
			Undate Settings					

#### 8.1.3 Restore Default

The following screen appears when selecting Restore Default. By clicking on the Restore Default Settings button, you can restore your Routers default firmware settings. To restore system settings, reboot your Router.



#### NOTE: The default settings can be found in section 4 Default Settings.

Once you have selected the Restore Default Settings button, the following screen will appear. Close the window and wait 2 minutes before reopening your browser. If required, reconfigure your PCs IP address to match your new configuration

#### **Gateway Restore**

The Gateway configuration has been restored to default settings and the Gateway is rebooting.

Close the Gateway Configuration window and wait for 2 minutes before reopening your web browser. If necessary, reconfigure your PC's IP address to match your new configuration.

After a successful reboot, the browser will return to the Device Info screen. If the browser does not refresh to the default screen, close and restart the browser and then enter http://192.168.1.1 into the address bar at the top of your browser window.

NOTE: The Restore Default function has the same effect as the reset button. The device board hardware and the boot loader support the reset to default button. If the reset button is continuously pushed for more than 5 seconds (and not more than 12 seconds), the boot loader will erase the configuration settings saved on flash memory.



#### 8.1.4 Update Firmware

The following screen appears when selecting Update Firmware. By following this screens steps, you can update your Routers firmware. Manual device upgrades from a locally stored file can also be performed using the following screen.

 ICC
 3G SETTINGS
 WIFI
 MANAGEMENT
 ADVANCED SETTINGS
 STATUS

 Management >Device Settings > Update Firmware
 Step 1: Obtain an updated firmware image file from your ISP.
 Step 2: Enter the path to the image file location in the box below or click the "Browse" button to locate the image file.
 Step 3: Click the "Update Firmware"

 Step 3: Click the "Update Firmware" button once to upload the new image file.
 Step 3: Click the "Update Firmware" button once to upload the new image file.

 NOTE: The update process for the Router takes about 2 minutes to complete, and for the 3G modern takes about 10 minutes, and your Kodare will reboot. Please DO NOT close the Browser and reload/or change the webpage during thu update process.

 Firmware File Name:
 Browse\_

- 1. Obtain an updated software image file
- 2. Enter the path and filename of the firmware image file in the Software File Name field or click the Browse button to locate the image file.
- 3. Click the Update Software button once to upload and install the file.

BAS

NOTE: The update process will take about 2 minutes to complete. The Router will reboot and the browser window will refresh to the default screen upon successful installation. It is recommended that you compare the Software Version at the top of the Basic screen (WUI homepage) with the firmware version installed, to confirm the installation was successful.

## 8.2 SNMP

The Simple Network Management Protocol (SNMP) allows a network administrator to monitor a network by retrieving settings on remote network devices. To do this, the administrator typically runs an SNMP management station program such as MIB browser on a local host to obtain information from the SNMP agent, in this case the 3G42W-MB (if SNMP enabled). An SNMP 'community' performs the function of authenticating SNMP traffic. A 'community name' acts as a password that is typically shared among SNMP agents and managers.

IC	3G SETTINGS	WIFI	MANAGEMENT	ADVANCED SETTINGS	STATUS					
Management > SN	MP									
Simple Network Mar	Simple Network Management Protocol (SNMP) allows a management application to retrieve statistics and status from the SNMP agent in this device.									
Select the desired va	lues and click "Apply" to config	gure the SNMP options.								
SNMP Agent 🤇	Disable 🖲 Enable									
Read Community:	public									
Set Community:	private									
System Name:	MOBILY42									
System Location:	unknown									
System Contact:	unknown									
Trap Manager IP:	0.0.0.0									
			Save/Apply							

Option	Description
Read Community	Read device settings
Set Community	Read and change device settings
System Name	Default = Mobily42
System Location	User defined value
System Contact	User defined value
Trap Manager IP	IP address of admin machine

### 8.3 SNTP

This screen allows you to configure the time settings of your Router.

BASIC	3G SETTINGS	WIFI	MANAGEMENT	ADVANCED SETTINGS	STATUS
Management > SNTP	•				
This page allows you to	o the router's time configural	ion.			
Automatically syn	chronize with Internet time s	ervers			
First NTP time server:	Other	<b>T</b> 0	.netcomm.pool.ntp./		
Second NTP time serve	r: Other	- 1	.netcomm.pool.ntp.		
Third NTP time server:	None	-			
Fourth NTP time server	n None	•			
Fifth NTP time server:	None	-			
Time zone offset:	(GMT+03:00	) Kuwait, Riyadh		T	
			Save/Apply		

Option	Description
First NTP timeserver:	Select the required server.
Second NTP timeserver:	Select second timeserver, if required.
Time zone offset:	Select the local time zone.

NOTE: SNTP must be activated to use Parental Control.

## 8.4 Access Control

The Access Control option found in the Management drop down menu configures access related parameters in the following three areas:

- Services
- Passwords
- Save/Reboot

Access Control is used to control local and remote management settings for your Router.

#### 8.4.1 Services

The Service Control List (SCL) allows you to enable or disable your Local Area Network (LAN) or Wide Area Network (WAN) services by ticking the checkbox as illustrated below. The following access services are available: FTP, HTTP, ICMP, SNMP, SSH, TELNET, and TFTP. Click Apply/ Save to continue.



Services	WAN
FTP	Enable
HTTP	Enable 80 port
ICMP	Enable
SNMP	Enable
SSH	Enable
TELNET	Enable
TETP	Enable
	Save/Apply



#### 8.4.2 Passwords

The Passwords option configures your Web UI account access password for your Router. Access to the device is limited to the following three user accounts:

- admin is to be used for local unrestricted access control
- support is to be used for remote maintenance of the device
- user is to be used to view information and update device firmware

Use the fields illustrated in the screen below to change or create your password. Passwords must be 16 characters or less with no spaces. Click Apply/Save to continue.

BASI		3G SETTINGS	WIFI	MANAGEMENT	ADVANCED SETTINGS	STATUS				
	Management > Access Control > Password									
	Access to your Router is controlled through three user accounts: admin, support, and user.									
	The user name "adm	in" has unrestricted access to ch	hange and view configuration o	f your Router. The password is	admin (lower case) by default.					
	The user name "support" is used to allow an ISP technician to access your Router for maintenance and to run diagnostics. It is allowed to access only via WAN. The password is support (lower case) by default.									
	The user name "user	" is to be used for restricted vie	w to the Basic and Status inform	nation. The password is user (lov	ver case) by default.					
	Use the fields below	to enter up to 16 characters and	d click "Apply/Save" to change	or create passwords. Note: Pass	word cannot contain a space.					
	Usernane: CM2 Password: New Password: Codim Password: Codim Password:									
				Apply/Save						

### 8.5 Save/Reboot

This function saves the current configuration settings and reboots your Router.

BASIC	3G SETTINGS	WIFI	MANAGEMENT	ADVANCED SETTINGS	STATUS
Managemen	at > Save/Reboot				
		Click the butte	n balow to volvest the Pouter for sou	ad configuration to take offect	
		Click the butto	in below to reboot the Router for sav	ed configuration to take effect.	
		Click the butto	n below to reboot the Router for sav	ed configuration to take effec	t.

NOTE 1: It may be necessary to reconfigure your TCP/IP settings to adjust for the new configuration. For example, if you disable the Dynamic Host Configuration Protocol (DHCP) server you will need to apply Static IP settings.

NOTE 2: If you lose all access to your web user interface, simply press the reset button on the rear panel for 5-7 seconds to restore default settings.

Advanced Settings



## 9 Advanced Settings

## 9.1 LAN

This screen allows you to configure the Local Area Network (LAN) interface on your Router.



SavejReboot

See the field descriptions below for more details.

Option	Description
IP Address	Enter the IP address for the LAN interface
Subnet Mask	Enter the subnet mask for the LAN interface
Enable IGMP Snooping	Enable by ticking the box Standard Mode: In standard mode, multicast traffic will flood to all bridge ports when no client subscribes to a multicast group. Blocking Mode: In blocking mode, the multicast data traffic will be blocked. When there are no client subscriptions to a multicast group, it will not flood to the bridge ports.
Enable LAN side Firewall	Check box to enable Firewall on LAN
Disable DHCP Server	Disables the DHCP server. Only to be done if Static IP address is set up
Enable DHCP Server	Select Enable DHCP server and enter your starting and ending IP addresses and the lease time. This setting configures the router to automatically assign IP, default gateway and DNS server addresses to every DHCP client on your LAN
Enable DHCP Server Relay	To relay DHCP requests from the subnet with no DHCP server on it to a DHCP server on other subnets. DHCP Server Relay is disabled by default. To access enable DHCP relay, please un-tick NAT enable first, that means to disable NAT first, and then press save button.
Configure the second IP Address and	Configure a second IP address by ticking the checkbox shown below and enter the following information:
Subnet Mask for LAN Interface	Enter the secondary IP address for the LAN interface.
	Enter the secondary subnet mask for the LAN interface.

## 9.2 NAT

#### 9.2.1 Port Forwarding

Port Forwarding allows you to direct incoming traffic from the Internet side (identified by Protocol and External port) to the internal server with a private IP address on the LAN side. The Internal port is required only if the external port needs to be converted to a different port number used by the server on the LAN side. A maximum of 32 entries can be configured.

BASIC	3G SETTINGS	WIFI	MANAGEMENT	ADVANCED SETTINGS	STATUS			
Advanced Setting	Advanced Settings > NAT > Port Forwarding							
Port Forwarding alk only if the external p	Port Forwarding allows you to direct incoming traffic from WAN side (identified by Protocol and External port) to the Internal server with private IP address on the LAN side. The Internal port is required only if the external port needs to be converted to a different port number used by the server on the LAN side. A maximum 32 entries can be configured.							
Add Remove								
Server Name   External Port Start   External Port End   Protocol   Internal Port Start   Internal Port End   Server IP Address   WAN Interface   Remove								

To add a Virtual Server, click the Add button. The following screen will display.

BASIO		3G SETTINGS	WIFI	MANA	GEMENT	ADVANCED SETTINGS STATUS
	NAT Port Forwar	ding				
	Select the service nam NOTE: The "Internal Port End" will be sel Remaining number of	e, and enter the serve   Port End" cannot b to the same value of entries that can b	r IP address and d e modified direct as "Internal Port e configured:32	ick "Apply/Save" to forward I ly. Normally, it is set to the Start".	P packets for this se same value as "Ex	rvice to the specified server. ternal Port End". However, if you modify "Internal Port Start", then "Internal
	Use Interface	ipoe_usb0/us	b0 💌			
	Service Name:	Select One			í	
	Curtom Services				l	
	Server IP Address	192,168,1				
		101100111				
					Apply/Save	
	External Port Start	External Port End	Protocol	Internal Port Start Internal	Port End	
			TCP 💽			
			TCP 💽			
			TCP 💽			
			TCP 💽			
			TCP 💽			
			TCP 💽			
			TCP 💽			
			TCP 💽			
			TCP 💽			
			TCP 💽			
			TCP 💽			
			TCP 💽			

Apply/Save

Option	Description
Select a Service or Custom Server	User should select the service from the list. Or create a custom server and
	enter a name for the server
Server IP Address	Enter the IP address for the server.
External Port Start	Enter the starting external port number (when you select Custom Server).
	When a service is selected the port ranges are automatically configured.
External Port End	Enter the ending external port number (when you select Custom Server).
	When a service is selected the port ranges are automatically configured.
Protocol	User can select from: TCP, TCP/UDP or UDP.
Internal Port Start	Enter the internal port starting number (when you select Custom Server).
	When a service is selected the port ranges are automatically configured
Internal Port End	Enter the internal port ending number (when you select Custom Server).
	When a service is selected the port ranges are automatically configured.



#### 9.2.2 Port Triggering

Some applications require specific ports in the Router's firewall to be open for access by remote parties. Port Triggering opens up the 'Open Ports' in the firewall when an application on the LAN initiates a TCP/UDP connection to a remote party using the 'Triggering Ports'.

The Router allows the remote party from the WAN side to establish new connections back to the application on the LAN side using the 'Open Ports'. A maximum 32 entries can be configured.



To add a Trigger Port, simply click the Add button. The following will be displayed.

BASIO		3G SETTINGS	WIFI	MANAGEMENT	ADVANCED SETTINGS STATUS				
	NAT Port Trigge	ring							
	Some applications su the port settings from Remaining number	Some applications such as games, video conferencing, remote access applications and others require that spacelic ports in the Router's frewall be opened for access by the applications. You can configure the post statisting from this screen by selecting an existing application or creating your own (Custom application) and click "Save/Apply" to add it. Remaining number of entries that an act endinguestage.							
	Use Interface	ipoe_usb0/us	b0 💌						
	Application Name:	0.1.10							
	<ul> <li>Select an app</li> </ul>	lication: Select One	-						
	C Custom appli	cation:							
				Save/Apply					
	Trigger Port Start	Trigger Port Fod Trigger	Protocol Onen Port SI	art Onen Port End Onen Protoco					
		TCP	<b>_</b>	TCP	-				
		TCP	-	TCP	•				
		TCP	•	TCP	-				
		TCP	•	TCP	-				
		TCP		TCP	-				
		TCP		TCP					
		TCP		TCP					
		TCP		TCP	-				

Save/Apply

Option	Description
Select an Application or Custom Application	User should select the application from the list. Or the user can enter the name of their choice.
Trigger Port Start	Enter the starting trigger port number (when you select custom application). When an application is selected, the port ranges are automatically configured.
Trigger Port End	Enter the ending trigger port number (when you select custom application). When an application is selected, the port ranges are automatically configured.
Trigger Protocol	TCP, TCP/UDP or UDP.
Open Port Start	Enter the starting open port number (when you select custom application). When an application is selected, the port ranges are automatically configured.
Open Port End	Enter the ending open port number (when you select custom application). When an application is selected, the port ranges are automatically configured.
Open Protocol	TCP, TCP/UDP or UDP

#### 9.2.3 DMZ Host

Your Router will forward IP packets from the Wide Area Network (WAN) that do not belong to any of the applications configured in the Virtual Servers table to the DMZ host computer.

Enter the computer's IP address and click Apply to activate the DMZ host. Clear the IP address field and click Save/Apply to deactivate the DMZ host.

BASIC	3G SETTINGS	WIFI	MANAGEMENT	ADVANCED SETTINGS	STATUS		
Advanced Se	Advanced Settings > NAT > DMZ Host						
The Router wi	The Router will forward IP packets from the WAN that do not belong to any of the applications configured in the Virtual Servers table to the DMZ host computer.						
Enter the com	outer's IP address and click "Apply" b	o activate the DMZ host.					
Clear the IP ac	idress field and click "Apply" to deact	ivate the DMZ host.					
DMZ Host IP A	.ddress:						
			Course (Appella				

## 9.3 Security

#### 9.3.1 IP Filtering

The IP Filtering screen sets filter rules that limit incoming and outgoing IP traffic. Multiple filter rules can be set with at least one limiting condition. All conditions must be fulfilled before individual IP packets can pass the filter.

#### Outgoing IP Filter

The default setting for Outgoing traffic is ACCEPTED. Under this condition, all outgoing IP packets that match the filter rules will be BLOCKED.



To add a filtering rule, click the Add button. The following screen will display.

BASIC		3G SETTINGS	WIFI	MANAGEMENT	ADVANCED SETTINGS	STATUS
A	dvanced Setings > 9	secutiy > Add IP Filter 0	Dutgoing			
Th	he screen allows you I ir the rule to take effe	to create a filter rule to identif tt. Click 'Apply/Save' to save	y outgoing IP traffic by specify and activate the filter.	ing a new filter name and at leas	t one condition below. All of the	specified conditions in this filter rule must be satisfied
Fi	iter Name:					
Pr	ratacalı		•			
Sc	ource IP address:					
So	ource Subnet Mask:					
Sc	ource Port (port or po	artiport):				
De	estination IP address:					
De	estination Subnet Mas	ki 🖉				
De	estination Port (port o	r port:port):				

Apply/Save

Filter Name	The filter rule label
Protocol	TCP, TCP/UDP, UDP or ICMP Source IP address
Source IP address	Enter source IP address Source Subnet Mask
Destination IP address	Enter source subnet mask
Source Port (port or port:port)	Enter source port number or port range
Destination IP address	Enter destination IP address
Destination Subnet Mask	Destination Subnet Mask
Destination port (port or port:port)	Enter destination port number or range

Click Apply/Save to save and activate the filter.



#### Incoming IP Filter

The default setting for all Incoming traffic is BLOCKED. Under this condition only those incoming IP packets that match the filter rules will be ACCEPTED.

BASIC	3G SETTINGS	WIFI	MANAGEMEN	T I	ADVANCED SETTINGS	STATU	S
Advanced S	Advanced Settings > Security > IP Filtering > Incoming IP Filtering						
When the fir	When the firewall is enabled on a WAN or LAN interface, all incoming IP traffic is BLOCKED. However, some IP traffic can be ACCEPTED by setting up filters.						
Choose Add	or Remove to configure incoming IP	filters.					
	Filter Name	Interfaces Protocol	Source Address / Mask	Source Port	Dest. Address / Mask	Dest. Port	Remove
			Add	Remove			

To add a filtering rule, click the Add button. The following screen will display.

ASIC	3G SETTINGS	WIFI	MANAGEMENT	ADVANCED SETTINGS	STATUS
Advanced Seting	js > Secutiy > Add IP Filter	Incoming			
The screen allows for the rule to take	you to create a filter rule to id e effect. Click 'Apply/Save' to	entify incoming IP traffi save and activate the filt	ic by specifying a new filter name and ter.	at least one condition below. All of the	specified conditions in this filter rule must be satisfied
Filter Name:					
Protocol:		•	I		
Source IP address					
Source Subnet Ma	sk:				
Source Port (port	or port:port):				
Destination IP add	iress:				
Destination Subne	t Mask:				
Destination Port (p	port or portiport):				
WAN Interfaces Select one or more Select All 🗹	(Configured in Routing mo e WAN/LAN interfaces display ipoe_usb0/usb0 🗹 br0/br	de and with firewall e ed below to apply this r 0	enabled) and LAN Interfaces ule.		

Please refer to the Outgoing IP Filter table for field descriptions. Click Apply/Save to save and activate the filter.

## 9.4 Parental Control

The Parental Control feature allows you to take advanced measures to ensure the computers connected to the LAN are used only when and how you decide.

#### 9.4.1 Time Restriction

This Parental Control allows you to restrict access from a Local Area Network (LAN) to an outside network through the Router on selected days at certain times. Make sure to activate the Internet Time server synchronization as described in section 8.3 SNTP, so that the scheduled times match your local time.

BAS	IC 3	G SETTINGS	WIFI	MA	NAGEMENT	ADVANCED SETTINGS   STATUS
	Advanced Settings > F	arental Control > T	ime of Day Restri	ctions A maximum	16 entries can be config	ured.
			Policy Nar	ne MAC Mon Tue	Wed Thu Fri Sat	Sun Start Stop Remove
					Add Remove	
Click Add to display the following	screen.					
BASI	C   3G SET	TINGS WIF	I	MANAGEMENT	ADVANCED SETTINGS	STATUS
	Time of Day Restriction					
	This page adds time of day restri running. To restrict other LAN di window and type "ipconfig /all".	tion to a special LAN devic svice, click the "Other MAC	te connected to the Rout I Address'' button and er	er. The 'Browser's MAC Addr iter the MAC address of the o	ess' automatically displays the MA ther LAN device. To find out the	AC address of the LAN device where the browser is MAC address of a Windows based PC, go to command
	Policy Name					
	Browser's MAC Address     O Other MAC Address (xxxxxxxxxxxxxxxxxxxxxxxx)		]			
	Days of the week Click to select	Mon Tue Wed Th	u Fri Sat Sun			

See instructions below and click Apply/Save to apply the settings.

Click to select Start Blocking Time (hh:mm) End Blocking Time (hh:mm)

Option	Description
Policy Name	A user-defined label for this restriction
Browser's MAC Address	MAC address of the PC running the browser
Other MAC Address	MAC address of another LAN device
Days of the week	The days the restrictions apply
Start Blocking Time	The time the restrictions start
End Blocking Time	The time the restrictions end

Save/Apply

#### 9.4.2 URL filter

With the URL filter, you are able to add certain websites or URLs to a safe or blocked list. This will provide you added security to ensure any website you deem unsuitable will not be able to be seen by anyone who is accessing the Internet via the BB@work.

Simply check To Block or To Allow and then click Add to enter the URL you wish added to a list

BASIC		3G SETTINGS	WIFI	MANAGEMENT	ADVANCED SETTINGS	STATUS
	Advanced Settings >	Parental Control > URL Fi	lter Please select the list	type first then configure th	e list entries. Maximum 100 er	tries can be configured.
	URL List Type: C	To block C To allow				
				Address Port Remov	re	
				Add Remove		
BASIC		3G SETTINGS	WIFI	MANAGEMENT	ADVANCED SET	TINGS STATUS
	Parental Control	URL Filter Add				
	Enter the URL addres	s and port number then clic	k "Save/Apply" to add the e	entry to the URL filter.		
	URL Address: Port Number:		(Either port 80	) or 8080 is accepted.)		
				Saire/Apr	dar (	

Once you have chosen to add a URL to the list you will be prompted to enter the address. Simply type it in and select Apply/Save.



## 9.5 Routing

Static Route and Dynamic Route settings can be found in the Routing link.

#### 9.5.1 Static route

The Static Route screen displays the configured static routes.

Click the Add or Remove buttons to change settings.



Click the Add button to display the following screen.

BASIC	3G SETTINGS	WIFI	MANAGEMENT	ADVANCED SETTINGS	STATUS		
Routing St	Routing Static Route Add						
By default, the gateway then	3G interface is the gateway for all c click "Save/Apply" to add the entry	estination network addresses tha to the routing table	t do not exist on the LAN side. T	o define static route, please ente	r the destination network address, subnet mask,		
Destination Ne Subnet Mask:	work Address:						
Gateway for S	atic Route:						
			Save/Apply				

Enter Destination Network Address, Subnet Mask. Then click Apply/Save to add the entry to the routing table.

#### 9.5.2 Dynamic route

To activate this option, select the Enabled radio button for Global RIP Mode.

To configure an individual interface, select the desired RIP version and operation, followed by placing a check in the Enabled checkbox for that interface. Click Apply/Save to save the configuration and to start or stop dynamic routing.

BASIC	3G SETTINGS	WIFI	MANAGEMENT	ADVANCED SETTINGS	STATUS			
Advanced Se	Advanced Settings > Routing > Dynamic Route							
NOTE: The W	IAN interface which has NAT ena	bled only can be configured t	he operation mode as passive	h.				
To activate RI Click the 'App	P for the WAN Interface, select the d ly/Save' button to star/stop RIP and	esired RIP version and operation save the configuration.	n and place a check in the 'Enab	led' checkbox. To stop RIP on th	ne WAN Interface, uncheck the 'Enabled' checkbox.			
Interface usb0	Version Operation Ena 2  Passive	bled						
			A A AT					

### 9.6 DNS

#### 9.6.1 DNS server

This page allows you to enable automatic DNS from the ISP or specify your own DNS server address manually.



#### 9.6.2 Dynamic DNS

The Dynamic DNS service allows a dynamic IP address to be aliased to a static hostname in any of a selection of domains, allowing the router to be more easily accessed from various locations on the Internet.

Save/Apply



To add a dynamic DNS service, click the Add button and this screen will display.

BASIC	3G SETTINGS	WIFI	MANAGEMENT	ADVANCED SETTINGS	STATUS
Add Dynamic DNS					
This page allows you	u to add a Dynamic DNS addre	ss from DynDNS.org	or TZO.		
D-DNS provider	DynDN	IS.org 💌			
Hostname					
Interface	ipoe_u	sb0/usb0 💌			
DynDNS Settings					
Username					
Password					

Apply/Save

Option	Description
D-DNS provider	Select a dynamic DNS provider from the list
Hostname	Enter the name for the dynamic DNS server
Interface	Select the interface of the IP address you would like to use from the list
Username	Enter the username for the dynamic DNS server
Password	Enter the password for the dynamic DNS server



### 9.7 Print Server

ľ

This page allows you to enable/disable the USB port of the BB@work to be used as a print server.

After enabling Print server functionality, you can set your printer name as well as the make and model to provide an easier way to identify the printer.

Please see Appendix A for more details on setting up your router to work with Print Server functionality.

BASIC		3G SETTINGS	WIFI	MANAGEMENT	ADVANCED SETTINGS	STATUS
	Advanced Settings	> Print Server				
	This page allows you	to enable / disable printer supp	port.			
	Enable on-board	d print server.				
	Printer name Make and model	42printer 42model				
				Save/Apply		

## 9.8 USB Storage

This page allows you to enable/disable the USB port of the BB@work to be used as a mass storage server.

Please see Appendix B for more details on setting up your router to work with Storage Server functionality.



## STATUS



## 10 Status

The Status menu has the following submenus:

- Diagnostics
- System Log
- 3G network
- Statistics
- Route
- ARP
- DHCP

## 10.1 Diagnostics

The Diagnostics menu provides feedback on the connection status of the device. The individual tests are listed below. If a test displays a fail status:

- 1. Click on the Help link
- 2. Now click Re-run Diagnostic Tests at the bottom of the screen to re-test and confirm the error
- 3. If the test continues to fail, follow the troubleshooting procedures in the Help screen.



Rerun Diagnostic Tests

Option	Description
Test your wired Connection	Pass: Indicates that the Ethernet interface from your computer is connected to the LAN port of this Router.
	Fail: Indicates that the Router does not detect the Ethernet interface on your computer.
Test your Wireless Connection	Pass: Indicates that the wireless card is ON.
	Down: Indicates that the wireless card is OFF.
Ping Default gateway	Pass: Indicates that the Gateway can communicate with the first entry point to the network. It is usually the IP address of the ISP's local Gateway. Fail: Indicates that the Gateway was unable to communicate with the first entry point on the network. It may not have an effect on your Internet connectivity. Therefore if this test
	fails but you are still able to access the Internet, there is no need to troubleshoot this issue.
Ping Primary Domain Name Server	Pass: Indicates that the Router can communicate with the primary Domain Name Server (DNS).
	Fail: Indicates that the Router was unable to communicate with the primary Domain Name Server (DNS). It may not have an effect on your Internet connectivity. Therefore if this test fails but you are still able to access the Internet, there is no need to troubleshoot this issue.

## 10.2 System Log

This function allows you to view system events and configure related options. Follow the steps below to enable and view the System Log.

1: Click Configure System Log to continue.



2: Select the system log options (see table below) and click Apply/Save.

BASIO		3G SETTINGS	WIFI	MANAGEMENT	ADVANCED SETTINGS	STATUS
	Diagnostics > Syst	em Log > Configuration				
	If the log mode is en above or equal to th mode is 'Local' or 'Bo	abled, the system will begin to lo re selected level will be displayed. oth,' events will be recorded in th	ig all the selected events. For th . If the selected mode is 'Remotive local memory.	ne Log Level, all events above o e' or 'Both,' events will be sent to	equal to the selected level will be the specified IP address and UD	a logged. For the Display Level, all logged events IP port of the remote syslog server. If the selected
	Select the desired va	lues and click 'Apply/Save' to co	onfigure the system log options			
	Log: C	D <sub>Disable</sub>				
	Log Level: Display Level: Mode:	Debugging V Error V Local V				

Back Apply/Save

Option	Description
Log	Indicates whether the system is currently recording events. You can enable or disable event logging. By default, it is disabled.
Log level	Allows you to configure the event level and filter out unwanted events below this level. The events ranging from the highest critical level "Emergency" down to this configured level will be recorded to the log buffer on the Router's SDRAM. When the log buffer is full, the newest event will wrap up to the top of the log buffer and overwrite the oldest event. By default, the log level is "Debugging", which is the lowest critical level. The log levels are defined as follows: Emergency is the most serious event level, whereas Debugging is the least important. For instance, if the log level is set to Debugging, all the events from the lowest Debugging level to the most critical level Emergency level will be recorded. If the log level is set to Error, only Error and the level above will be logged.
Display Level	Allows you to select the logged events and displays on the View System Log window for events of this level and above to the highest Emergency level.
Mode	Allows you to specify whether events should be stored in the local memory, be sent to a remote syslog server, or to both simultaneously. If remote mode is selected, the view system log will not be able to display events saved in the remote syslog server. When either Remote mode or Both mode is configured, the WEB UI will prompt the you to enter the Server IP address and Server UDP port.



## 10.3 3G Network

Select this option for detailed status information on your Routers 3G connection



Status	Description
Manufacturer	The manufacturer of the embedded 3G module.
Model	The model name of the embedded 3G module
FW Rev	The firmware version of the 3G module.
IMEI	The IMEI (International Mobile Equipment Identity) is a 15 digit number that is used to identify a mobile device on a network.
FSN	Factory Serial Number of the 3G module.
IMSI	The IMSI (International Mobile Subscriber Identity) is a unique 15-digit number used to identify an individual user on a GSM or UMTS network.
HW Rev.	The hardware version of the 3G module.
Temperature	The temperature of the 3G module in degrees Celsius.
System Mode	WCDMA/Europe CDMA 2000 / America
WCDMA band	The 3G radio frequency band which supports tri-band UTMS/HSDPA/HSUPA frequencies (850/1900/2100 MHz), IMT2000 is 2100 MHz, WCDMA800 is 850 MHz, WCDMA1900 is 1900 MHz.
WCDMA channel	The 3G channel.
GSM channel	The 2G channel.
GMM (PS) state	Packet Switching state
MM (CS) state	Circuit Switching state
Signal Strength 1	The 3G/2G service signal strength in dBm.
Signal Strength 2	The 3G/2G service signal strength in dBm.

## **10.4 Statistics**

These screens provide detailed information for the:

- Local Area Network (LAN)
- 3G Interfaces

NOTE: These statistics page refresh every 15 seconds.

#### 10.4.1 LAN

This screen displays statistics for the Ethernet and Wireless LAN interfaces

ć,		30	G SET	TINGS			WIFI	
Status > St	atistic	; > L#	NN N					
Interface		Rece	eived			Trans	mitte	
	Bytes	Pkts	Errs	Drops	Bytes	Pkts	Errs	Drops
ENET1	75466	583	0	0	445834	743	0	0
ENET2	0	0	0	0	23042	99	0	0
ENET3	0	0	0	0	22978	98	0	0
ENET4	0	0	0	0	22914	97	0	0

Reset Statistics

Interface	Shows connection interfaces	S
Received/Transmitted	Bytes	Rx/TX (receive/transmit) packet in bytes
	Pkts	Rx/TX (receive/transmit) packets
	Errs	Rx/TX (receive/transmit) packets with errors
	Drops	Rx/TX (receive/transmit) packets dropped

#### 10.4.2 3G Network

This page displays the inbound and outbound statistics of the 3G network

BASIC		3G SET	TINGS
	Status > Statistics	> 3G netw	ork
	Statistics of WAN	Inbound	Outbound
	Bytes	7016	22968
	Packets	57	246
	Drops	0	0
	Error	0	0

Interface	Shows connection interfaces	5
Received/Transmitted	Bytes	Rx/TX (receive/transmit) packet in bytes
	Pkts	Rx/TX (receive/transmit) packets
	Errs	Rx/TX (receive/transmit) packets with errors
	Drops	Rx/TX (receive/transmit) packets dropped



## 10.5 Route

Select Route to display the network routes configured on the Router has found.

	3G SET	TTINGS	W	∕VIFI		MA
Status > Rout	e					
Elags: LL - up. J	- roject G - ask					
D - dynamic (r	edirect), M - moc	dified (redirect).	- reinsta	tate		
- dynamic (restination	Gateway	dified (redirect).	Flag f	Metric	Service 1	Interface
D - dynamic (ro <b>Destination</b> 192.168.1.0	Gateway	dified (redirect).	Flag 1	Metric : 0	Service	<b>Interface</b> br0

## 10.6 ARP

Click ARP to display the ARP information.



## 10.7 DHCP

Click DHCP to display the DHCP information.

BASIC 3G SETTINGS WIFI MANAGEMENT ADVANCED SETTINGS STATUS

Status > DHCP Leases

Hostname MAC Address IP Address Expires In

### 10.8 PING

Check a connection by entering the IP address

BASIC	3G SETTINGS	WIFI	MANAGEMENT	ADVANCED SETTINGS	STATUS
Status > PI	NG				
Please type in	a host name or an IP Address. C	lick Submit to check th	e connection automatically.		
Host Name or	IP Address:				
	Submit				

Appendix



## 11 Appendix A: Print Server

These steps explain the procedure for enabling the Print Server.

1. Select "Print Server" from the Advanced Settings menu in the Web User Interface.

Select the Enable on-board print server checkbox and enter the Printer name and the Make/ model

NOTE: The Printer name can be any text string up to 40 characters. The Make and model can be any text string up to 128 characters.

BASIC	3G SETTINGS	WIFI	MANAGEMENT	ADVANCED SETTINGS	STATUS
Advanced Settin	gs > Print Server				
This page allows y	ou to enable / disable printer s	upport.			
Enable on-bo	ard print server.				
Printer name Make and model	42printer 42model				
			Save/Apply		

## 11.1For Windows Vista/7

These steps explain the procedure for enabling the Printer Server.

1. Go to the control panel, and select 'Printers' if you are using Windows Vista or select "Devices and Printers" if you are using Windows 7.

Once in the 'Printers' page, click the 'Add a printer' button as shown below.

_
٩
0

2. Select 'Add a network, wireless or bluetooth printer'



3. Click on the radio-button labelled 'Select a shared printer by name', and type

"http://192.168.1.1:631/printers/42printer" in the box below. Click 'Next'.

NOTE: The PrinterName must be the same as the printer name entered into the Printer section of BB@work's user interface.

ᢖ 🖶 Add Printer		
Find a printer by name	e or TCP/IP address	
Browse for a printer		
Select a shared printer by r	name	
http://192.168.1.1:631	/printers/42printer	Browse
Example: \\computern http://computername/	ame\printername or /printers/printername/.printer	
Add a printer using a TCP/	1P address or hostname	
		Next Cano

- 4. Next, select the driver that came with your printer. Browse through the list to select your printer driver, or click 'Have Disk' if you have your printer driver installation media.
- 5. Choose whether you want this printer to be the default printer, and then click 'Next'.

		×			
🌀 🖶 Add Printer					
You've successfully added 42printer on http://192.168.1.1:631					
Printer name:	42printer on http://192.168.1.1:631				
This printer has be	en installed with the Samsung ML-1740 Series driver.				
	Next Car	ncel			

6. Click 'Finish'. Your device is now configured and ready for use.



## 11.2 For MAC OSX

These steps explain the procedure for enabling the Printer Server.

E

4SIC		3G SETTINGS	WIFI	MANAGEMENT	ADVANCED SETTINGS	STATUS
	Advanced Settings	> Print Server				
	This page allows you	to enable / disable printer supp	ort.			
	Enable on-board print server.					
	Printer name Make and model	42printer 42model				

Save/Apply

- 1. Click on the Apple menu, select System Preferences.
- 2. In the System Preference menu click on the Print & Fax.



3. Click the + button to add your printer.



- 4. Mouseover to the Protocol drop down list and select Internet Printing Protocol IPP
- 5. In the Address field, type "192.168.1.1:631"
- 6. In the Queue field, type "/printers/{PrinterName}"



NOTE: (PrinterName) must be the same as the printer name entered into the Printer section of the BB@work's user interface.

7 . From the Print Using drop down list, select your corresponding printer driver.



8. Click Add and check the printer status.



## 12 Appendix B: Samba Server

## 12.1 For Windows Vista/7

- 1. Open a web-browser (such as internet Explorer, Firefox or Safari)
- 2. Type in the address \\ "NetbiosName" \ "DirectoryName" \ (eg \\MOBILY42 \USB-Storage)



Note: There are no username and password required to access the USB drive, the user will be able to read/write the folder/files in the USB drive.13.2 For MAC OSX

## 12.2 For MAC OSX

- 1. Click the finder icon in the Dock.
- 2. Choose Connect to Server from the Go menu.
- 3. In the address field of the Connect to Server dialog, type in the URL Smb:// "NetbiosName"/"DirectioryName" (eg Smb:// MOBILY42/USB-Storage))

0 🔴	Connect to Server	
Server Address:		
smb://MOBILY42/USB	-Storage	+ 0•
Favorite Servers:		
Remove	Browse	Connect

4. Select Connect to connect your USB driver.





## user manual

### mobily... my world, my choice

customer service: 056-010-1100 | business.sales@mobily.com.sa

