



ribbon™

EdgeMarc EdgeMarc 6000

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About EdgeMarc 6000

Introduction

The newest addition to the Ribbon Intelligent Edge family is the EdgeMarc 6000. It acts as a flexible demarcation/service insertion/control point device with physical telephony ports and the power to run multiple Virtual Network Functions (VNFs). Specifically designed for unified communications offerings, this network device can connect to a variety of digital and analog legacy systems. The Arm®-based architecture reduces capital expense while automated “zero touch” provisioning, remote monitoring and management reduce operating expense.

Supported Features

The EdgeMarc 6000 device provides:

Session Capabilities

- 300 concurrent session capacity
- 60 TDM/FXx
- 1 Gbps packet throughput

LAN/WAN Connectivity

- 1 or 2 PRI ISDN links over T1/J1/E1
- 8 FXS ports
- 2 FXO ports

- 2 FXO ports
- 4 LAN ports
- 2 Gb Ethernet ports for WAN
- 2 SFP WAN ports
- 4G/LTE

Multi-tenant Management via Ribbon EdgeView Service Control Center

- Zero touch provisioning
- Remote monitoring
- Remote firmware upgrades
- Fault monitoring

Troubleshooting

- Threshold alerts
- LAN/WAN MOS scores
- SIP ladder diagrams
- Ring buffers

Contact and Support

Customer Support

- To enter a trouble ticket, navigate to the Customer Support Portal to open a case. <https://ribboncommunications.com/services/support-services>
- To receive immediate assistance on a critical issue, please call: +1 833 742 2661

Customer Documentation

To download customer documentation, navigate to the documentation tab: <https://ribboncommunications.com/services/support-services>

License and Warranty

This section provides a link to the license information related to the operation of EdgeMarc hardware and software as well as the EdgeMarc hardware warranty.

EdgeMarc Limited Hardware Warranty

For a period of five (5) years from the date Ribbon Communications ships the Product to Purchaser ("Warranty Period"), Ribbon Communications warrants that such Hardware will be (i) free of defects in material and workmanship under normal authorized use consistent with the Hardware Installation Guide instructions and will (ii) substantially conform to Ribbon Communications' published specifications for such Hardware as of the date of Purchaser's order. Purchaser shall notify Ribbon Communications of any non-conformance during the Warranty Period. Purchaser's sole and exclusive remedy and Ribbon Communications' entire liability under this limited warranty shall be for Ribbon Communications, at its sole option, to either repair or advance replace such nonconforming Hardware as set forth in this limited warranty. In case of repair, Purchaser must obtain return authorization verification from Ribbon Communications and return the nonconforming Hardware to a designated repair facility, freight prepaid, with a statement describing the nonconformity. Nonconforming Products must be returned to Ribbon Communications within fourteen (14) business days. If Purchaser fails to return the Product within the specified time frame, Ribbon Communications will charge Purchaser for the cost of new Product purchase. Ribbon Communications may repair such nonconforming Hardware with either new or refurbished equipment. Ribbon Communications will use commercially reasonable efforts to ship replacement Hardware within fifteen (15) business days after receipt of the returned Product to a designated repair facility. In case of advance replacement, if Ribbon Communications in its sole determination and approval deems that advance replacement units are necessary, advance replacement units will be shipped

on the same business day for next-day delivery (within the Continental US) if Ribbon Communications receives and acknowledges

on the same business day for next-day delivery (within the Continental US) if Ribbon Communications receives and acknowledges Purchaser's notification by 1:00 PST. If Ribbon Communications, in its sole and independent determination, deems the Hardware to be allegedly defective or malfunctioning, then Ribbon Communications may refund the purchase price paid by the Purchaser.

EdgeMarc Standard Limited Software Warranty

Contact your local sales representative for warranty details.

Exclusions

This limited warranty shall not apply if Purchaser (or someone acting under Purchaser's control) has (i) altered or modified the Product against the Hardware Installation Guide instructions, (ii) not followed Ribbon Communications instructions for installation, operation, maintenance or repair of the Hardware or Software, (iii) subjected the Hardware or Software to extreme temperatures, electrical stress, misuse, negligence, omissions, physical abuse or accident, (iv) engaged in unauthorized services using the Hardware or Software, and (v) been a victim of an act of God, third-party misconduct, accident, fire, lightning, power surges, outages, or other hazards.

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Item	Description
Specifications	
Dimensions	Length: 201.5mm / 7.93” Width: 332mm / 13.07” Depth: 44.5mm / 1.75”
Weight	3.99 lbs/1.81 kg (system only)
Power	AC Input 100-240V, 2A, 50-60Hz, DC Output 12V 6A, Desktop Power Adapter, 72W
Warranty	5 Years

Environmental requirements	Operating Temperature: 32°F to 104°F (0° to 40°C) Relative Humidity: 4% to 90%, non-condensing
Certifications	RoHS Compliant, WEEE Compliant
Safety	UL/cUL, LVD
Emissions	FCC part 15B, IC, CE, RCM, VCCI

EdgeMarc 6000 Front Panel

Figure 1: EdgeMarc 6000 Front Panel



When lit, the Power LED indicates power is supplied to the system. The Status LED changes to indicate the current state of the system (Table 1).

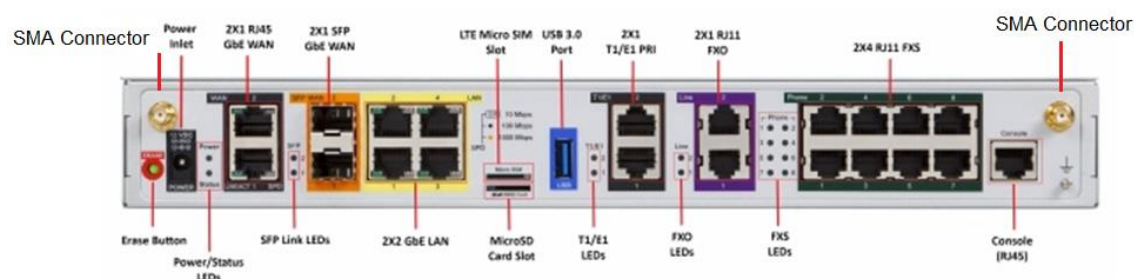
Table 2: EdgeMarc 6000 LEDs

LED	Indicator	Description
Power	Off	Power is not supplied to the device. Troubleshoot by verifying that the power adapter is connected to the unit and that power is supplied to the AC wall outlet.
	Solid Green	Power is supplied to the unit.
Status	Off	Power is not supplied to the device, or the bootloader failed to load.
	Solid Amber	The device is running a self-test and is initializing.
	Flashing Amber	The device is upgrading its software.
	Flashing Green	The device is loading the EdgeMarc VoIP Operating System (VOS).
	Solid Green	VOS is ready.
RF	Red	The device is in the bootloader. The kernel will change the LED to solid amber once the kernel starts loading.
	Green	4G LTE is connected.
	Off	T1/E1 port is not in use.
T1/E1 (1-2)	Solid Green	T1/E1 port is in use.

Line (1-2)	Off	PSTN line is not in use.
	Solid Green	PSTN line is in use.
Phone (1-8)	Off	Phone is in the on-hook state.
	Solid Green	Phone is in the off-hook state.

EdgeMarc 6000 Back Panel

Figure 2: EdgeMarc 6000 Back Panel



When lit, the Power LED indicates power is applied to the system. The Status LED changes to indicate the current state of the system (Table 1).

Table 3: EdgeMarc 6000 Back Panel LEDs

LED	Indicator	Description
Power	Off	Power is not supplied to the device. Troubleshoot by verifying that the power adapter is connected to the unit and that power is supplied to the AC wall outlet.
	Solid Green	Power is supplied to the unit.
Status	Off	Power is not supplied to the device, or the bootloader failed to load.
	Solid Amber	The device is running a self-test and is initializing.
	Flashing Amber	The device is upgrading its software.
	Flashing Green	The device is loading the EdgeMarc VoIP Operating System (VOS).
	Solid Green	VOS is ready.
	Red	The device is in the bootloader. The kernel will change the LED to solid amber once the kernel starts loading.

SFP Link (1-2)	Solid Green	Peer link is powered.
	Flashing LED	Fiber traffic is active.
T1/E1 (1-2)	Off	T1/E1 port is not in use.
	Solid Green	T1/E1 port is in use.
Line (1-2)	Off	PSTN line is not in use.
	Solid Green	PSTN line is in use.
Phone (1-8)	Off	Phone is in the on-hook state.
	Solid Green	Phone is in the off-hook state.

Table 4: EdgeMarc 6000 Back Panel Components

Physical Label/Type	Function	Description
Erase button	Erase	<p>Press the Erase button in quick succession to control the following:</p> <ul style="list-style-type: none"> One click—No action. Two clicks—Resets the CLI password with no service interruption. Three clicks—Restores to factory default settings and reboots the system. <p>Note: When restored to factory default settings, the current configuration is lost, disconnecting all VoIP devices, Internet connectivity, and network access for computers until the system is reconfigured.</p>
Power Inlet	Accepts power input	This is a 12V 6A DC power socket.
Power/Status LEDs	System power and status	Refer to Table 1 for system and power status details.
Ethernet WAN ports 1-2	WAN	2x1 10/100/1000 Mbps RJ45 Ethernet ports for WAN network connectivity (Copper).
SFP Link LEDs	Status	When lit, the SFP port is active and the copper RJ45 port is inactive. Refer to Table 1 .
Optical WAN SFP ports 1-2	WAN	Small Form-Factor Pluggable (SFP) for fiber (RJ45) Gigabit Ethernet connectivity. Either the SFP port (operating at 100/1000 Mbps) or the RJ45 (operating at 10/100/1000 Mbps) port can be active at a time.
<p>Confidential and Proprietary. Copyright © 2019 Ribbon Communications Operating Company, Inc. ("Ribbon"). All rights reserved.</p>		

Ethernet LAN ports 1-4	LAN	2x2 10/100/1000 Mbps RJ45 Ethernet ports for LAN network connectivity.
LTE Micro SIM Slot	4G LTE Support	Allows you to insert a 4G LTE micro SIM card thus allowing 4G network access.
Micro SD Card Interface	Storage	Allows the EdgeMarc to save configurations and other files to an SD High Capacity (SDHC) Version 2.0 card. Maximum storage capacity is 32 GB per SD card, 4 GB per file. The SD card capabilities are configured with the web-based configuration menu and with command-line interface (CLI). Refer to EdgeMarc 6000 MicroSD Card Specifications.
USB 3.0 port	Data transmission	Can be used to connect USB devices.
T1/E1 LEDs	Status	When lit, the T1/E1 port is active. Refer Table 1 .
T1/E1 PRI ports 1-2	T1/E1	Allows the user to transmit voice and data through PRI. 2 x T1/E1 default system configuration. Two ports are available on the main board.
Line ports 1-2	FXO	2 x RJ11 ports for 2 FXO channels.
Phone ports 1-8	FXS	8 x RJ11 ports for 8 FXS channels.
FXO/FXS LEDs	Status	Refer to Table 2-2 for FXO/FXS LED status details.
Management Console ports	Management	RJ45 serial craft port for console management. This port is used for debug or diagnostic purposes only. Primary system configuration is performed from a web browser as described in the <i>EdgeMarc User Guide</i> .
SMA Connector	4G LTE Support	Connectors for LTE antenna.

Ethernet Port LEDs

Figure 3: Ethernet port LEDs

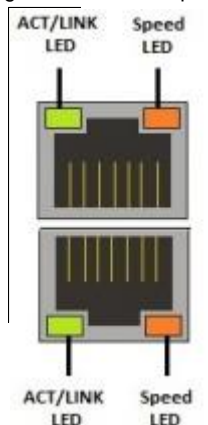


Table 5: Ethernet Port LEDs

Label	Indication	Status
Activity/Link		

Green	Off	There is no connection between the ends of the network cable. Check cable, replace cable.
	On-Flickering Green	The adapter is sending and receiving network data. The frequency of the flashing varies with the amount of data being transferred.
	On-Solid Green	The device is powered and there is a good link between the Ethernet port and the connected switch.
Speed		
Green/Amber	Off	The device is not powered, no cable connected, or the port speed is set to 10 Mbps.
	On-Solid Amber	A powered device is connected and the port speed is set to 1000 Mbps.
	On-Solid Green	A powered device is connected and the port speed is set to 100 Mbps.

MicroSD Card Features and Specifications

In this section:

[EdgeMarc 6000 MicroSD Card Specifications](#)

EdgeMarc 6000 MicroSD Card Specifications

Table 1 describes supported EdgeMarc 6000 microSD card features.

For information about configuring microSD card settings, see the [EdgeMarc VOS User Guide in the Ribbon Communications Knowledgebase](#):

www.sonusnetworks.secure.force.com/KB/

Disclaimer

Some older and slower speed microSD cards do not support the entire MMC specification. These cards can dramatically reduce the card write speeds and the overall performance of the system. Recommended microSD cards are class 10, UHS 1 or faster.

Table 6: MicroSD Card Features

Feature	Description
File format	MS-DOS File Allocation Table FAT32 (Limited Support), Ext3
MicroSD card classes	Class 10, and UHS-1 Recommended default is Class 10 or faster.
Capacity	Maximum storage capacity: 32 GB per microSD card, 4 GB per file.
CLI	<p>File Commands</p> <pre>delete = rm copy = cp rename = mv edit = vi or cat</pre> <p>Directory Commands</p> <pre>create = mkdir delete = rmdir rename = mv</pre>

	<p>MicroSD Card Commands</p> <p>mount = sdcard mount</p> <p>In FAT32 format if the microSD card (or SD card) was not properly unmounted, this command will result in the following syslog message: "Volume was not properly unmounted. Some data may be corrupt. Please run fsck." Since EdgeMarc no longer supports dos fsck tool, this must be fixed either on an EdgeMarc with pre-15.3.0 VOS or on an appropriate Windows system.</p> <p>unmount = sdcard umount</p> <p>format* = sdcard format</p> <p>Please note that Quick Format is not available in EdgeMarc versions 15.3.0 and above. A microSD card of 32 GB can take up to 35 minutes to be formatted.</p> <p>name/rename SD card* = sdcard volume <volume name></p> <p>status* = sdcard check</p> <p>*Supports only Ext3 file system</p>
EdgeMarc files	You can copy the following types of files to and from the microSD card using the CLI: conf1, conf2, syslog, pcap, mand logs, sys_report output.
TFTP server	The TFTP file server is used for endpoint configuration file storage.
FTP server	The FTP file server is used for endpoint configuration file storage.
Remote access	SSH into the EdgeMarc 6000 via SCP for remote access to the microSD card and files within the microSD card.
System alert for microSD card insert/removal	A system alert is issued when a microSD card is inserted or removed. The alert contains the timestamp of the event.

Console Cable Pinouts

The pinout of the Console cable RJ45-to-DB9 is given below.

Figure 4: Console Cable



Table 7: Console cable pinout table

PIN	RJ45 Signal	RJ45 to DB9	DB9 Signal	PIN
1	NC	—	—	—
2	NC	—	—	—

Installation Prerequisites - Tools Required

In this section:

- [Required Tools and Materials](#)
- [Power Surge Protection](#)

Required Tools and Materials

You will need the following tools and materials to install the EdgeMarc:

- Ethernet cables—To connect the LAN ports to LAN switches or to individual VoIP devices.

Power Surge Protection

EdgeMarc units are designed with a robust internal surge protection system. For more effective surge protection, it is recommended that the EdgeMarc be plugged into an external surge protector or UPS.

Installing EdgeMarc 6000 in a Rack

EdgeMarc 6000 is the width of a rack mount. It is unnecessary to attach rack-mount ears.

Installing EdgeMarc 6000 on a Desktop, Shelf, or Tray

1. Remove the EdgeMarc device and accessories from the shipping container.
2. Place the device on a flat, dry surface such as a desktop, shelf, or tray.

Powering on the System

In this section:

- [Connecting the Power and Cables](#)
- [Powering on the EdgeMarc 6000](#)

Connecting the Power Cables

The EdgeMarc 6000 includes an AC power adapter for connecting to an AC outlet.



Always connect the AC power cord to an AC outlet suitable for the power supply that came with the unit to reduce the risk of damage.



Secure the AC power cord to a cable management system using a fastener or tie wrap to insure the EdgeMarc does not hang from the AC outlet.

1. If you are connecting to an Internet router or Internet DMZ switch, connect the Ethernet cable to the WAN Interface port (Port 2) on the EdgeMarc and the other end to the WAN device.
2. Power on the system.



The equipment has a separate protective earthing terminal on the chassis that must be permanently connected to earth ground to adequately ground the chassis and protect the operator from electrical hazards.

Powering on the EdgeMarc 6000

1. Turn on the EdgeMarc power switch.
- 1.

2. Make sure that the power and status LEDs on the front panel are solid green after the EdgeMarc powers on.
3. Proceed to [Configuring Basic Network Settings](#).

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EdgeMarc 6000 Class A Statements

Figure 5: Japan

<p>この装置は、クラスA情報技術装置です。この装置を家庭環境で使用する と電波妨害を引き起こすことがあります。この場合には使用者が適切な 対策を講ずるよう要求されることがあります。 VCCI-A</p>	
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Figure 6: Korea

Class A ITE		
기종별	사용자안내문	
A급 기기 (업무용 방송통신기기)	이 기기는 업무용(A급)으로 전자파적합등록을 한 기기이오니 판매자 또는 사용자는 이 점을 주의하시기 바라며, 가정외의 지역에서 사용하는 것을 목적으로 합니다.	

Figure 7: China

<p style="text-align: center;">声 明</p> <p>此为 A 级产品，在生活环境中，该产品可能会造成无线电干扰。在这种情 况下，可能需要用户对其干扰采取切实可行的措施。</p>	
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EdgeMarc 6000 FCC Notice

In this section:

[Canadian Certification Requirements for Bilingual Safety, Warning and Caution Markings](#)

USA and Canadian Notices



This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

FCC Notice

FCC Notice

Class A Digital Device or Peripheral

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

In accordance with Part 15 of the FCC rules, the user is cautioned that any changes or modifications not expressly approved by Ribbon Communications, Inc. could void the user's authority to operate this equipment.

The socket outlet to which this apparatus is connected must be installed near the equipment and must always be readily accessible.

Part 15 FCC Rules

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

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

Part 68 FCC Rules

This equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. On the Bottom of this equipment is a label that contains, among other information, a product identifier in the format.

Certification jack Universal Service Order Code (USOC): RJ11, REN: 0.1 A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. A compliant telephone cord and modular plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant. See installation instructions for details.

Industry Canada (IC)

This Class [A] digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la Classe [A] est conforme à la norme NMB-003 du Canada.

The Industry Canada label identifies certified equipment. This certification means that the equipment meets telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s).

This product apparatus complies with Canadian IC CS-03.

This product meets the applicable Innovation, Science and Economic Development Canada.

The Ringer Equivalence Number (REN) is an indication of the maximum number of devices allowed to be connected to a telephone interface. The termination of an interface may consist of any combination of devices subject only to the requirement that the sum of the RENs of all the devices not exceed five.

Ce produit est conforme à l'application de l'Innovation, de la Science et le développement économique de Canada. L'indice d'équivalence de la sonnerie (IES) sert à indiquer le nombre maximal de terminaux qui peuvent être raccordés à une interface téléphonique. La terminaison d'une interface peut consister en une combinaison quelconque de dispositifs, à la seule condition que la somme d'indices d'équivalence de la sonnerie de tous les dispositifs n'excède pas cinq.

The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations. Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.



Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

NOTICE: The Ringer Equivalence Number (REN) assigned to each relevant terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the RENs of all the devices does not exceed 5.

The REN of this equipment is either marked on the unit or included in the new style USA FCC registration number. In the case that the REN is included in the FCC number, the user should use the following key to determine the value:

The FCC number is formatted as US:AAAEQ#TXXX.

is the Ringer Equivalence Number without a decimal point (e.g. REN of 1.0 will be shown as 10, REN of 0.3 will be shown as 03). In the case of a Z ringer, ZZ shall appear. In the case of approved equipment without a network interface or equipment not to be connected to circuits with analog ringing supplied, NA shall appear.

The REN is useful to determine the quantity of devices that may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of RENs of all devices that may be connected to a line, is determined by the total RENs, contact the local telephone company.

Canadian Certification Requirements for Bilingual Safety, Warning and Caution Markings

Canadian Federal and Provincial/Territorial statutes and regulations, such as the Consumer Packaging and Labeling Regulation, require the use of bilingual product markings for products sold in Canada and in the province of Quebec, additionally regulated under "The Charter of the French Language." The bilingual requirements include the safety, warning and caution markings as defined by the Standard or ORD.

The UL Procedure contains the English language markings. It is the sole responsibility of the Applicant and Manufacturer to comply with the applicable Canadian Federal and Provincial/Territorial marking regulation(s) and law(s) in both official languages.

This document applies to all customers of ULs product certification services for the Canadian markets, for example, UL/C-UL/ULC Mark certifications.

View the *Canadian Certification Requirements for Bilingual Safety, Warning and Caution Markings* document.

EdgeMarc 6000 Regulatory Notices

In this section:

- [CE Mark RED Directive](#)
- [Declaration of Conformity](#)

CE Mark RED Directive

The object of the declaration described above product is in conformity to all applicable requirements of EU Directive 2014/35/EU, Directives 2014/30/EU, Directives 2014/53/EU and 2011/65/EU and is CE-marked accordingly

Declaration of Conformity

English:	Hereby, Ribbon Communications, declares that this EdgeMarc 6000 is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
Česky [Czech]:	Ribbon Communications tímto prohlašuje, že tento EdgeMarc 6000 je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.
Dansk [Danish]:	Undertegnede Ribbon Communications erklærer herved, at følgende udstyr EdgeMarc 6000 overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.

Deutsch [German]:	Hiermit erklärt Ribbon Communications, dass sich das Gerät EdgeMarc 6000 in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.
Eesti [Estonian]:	Käesolevaga kinnitab Ribbon Communications seadme EdgeMarc 6000 vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
Español [Spanish]:	Por medio de la presente Ribbon Communications declara que el EdgeMarc 6000 cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
Ελληνικά [Greek]:	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ Ribbon Communications ΔΗΛΩΝΕΙ ΟΤΙ EdgeMarc 6000 ΣΤΙΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ
Français [French]:	Par la présente Ribbon Communications déclare que l'appareil EdgeMarc 6000 est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.
Italiano [Italian]:	Con la presente Ribbon Communications dichiara che questo EdgeMarc 6000 è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Latviski [Latvian]:	Ar šo Ribbon Communications deklarē, ka EdgeMarc 6000 atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
Lietuvių [Lithuanian]:	Šiuo Ribbon Communications deklaruoja, kad šis EdgeMarc 6000 atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
Nederlands [Dutch]:	Hierbij verklaart Ribbon Communications dat het toestel EdgeMarc 6000 in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.
Malti [Maltese]:	Hawnhekk, Ribbon Communications, jiddikjara li dan EdgeMarc 6000 jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn rilevanti li hemm fid-Dirrettiva 1999/5/EC.
Magyar [Hungarian]:	Alulírott, Ribbon Communications nyilatkozom, hogy a EdgeMarc 6000 megfelel a vonatkozó alapvető követelményeknek és az 1999/5/EC irányelv egyéb előírásainak.
Polski [Polish]:	Niniejszym Ribbon Communications oświadcza, że EdgeMarc 6000 jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC
Português [Portuguese]:	Ribbon Communications declara que este EdgeMarc 6000 está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
Slovensko [Slovenian]:	Ribbon Communications izjavlja, da je ta EdgeMarc 6000 v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.

Slovensky [Slovak]:	Ribbon Communications týmto vyhlasuje, že EdgeMarc 6000 spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.
Suomi [Finnish]:	Ribbon Communications vakuuttaa täten että EdgeMarc 6000 tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Svenska [Swedish]:	Härmed intygar Ribbon Communications att denna EdgeMarc 6000 står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.
Íslenska [Icelandic]:	Hér með lýsir Ribbon Communications yfir því að EdgeMarc 6000 er í samræmi við grunnkröfur og aðrar kröfur, sem gerðar eru í tilskipun 1999/5/EC
Norsk [Norwegian]:	Ribbon Communications erklærer herved at utstyret EdgeMarc 6000 er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 1999/5/EF

End of Life Products

Ribbon Communications encourages you to recycle your end-of-life Ribbon Communications products in an environmentally considerate way. In accordance with the requirements of the European Waste Electronic and Electrical Equipment (WEEE) Directive, all Ribbon Communications products are marked as recyclable and should not be disposed of in the household or general waste stream.

Restriction of Hazardous Substances Directive (RoHS)

Ribbon Communications products are RoHS compliant, which means we have eliminated or brought to within acceptable limits: Lead, Mercury, Cadmium, Hexavalent Chromium, Polybrominated Biphenyls, and Polybrominated Diphenylethers. For more information please contact:

www.ribboncommunications.com/global-services

Safety Precautions

When using your telephone equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, including the following:

- Do not use this product near water for example, near a bathtub, washbowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool.
- Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
- Do not use the telephone to report a gas leak in the vicinity of the leak.
- Use only the power cord and batteries indicated in this manual. Do not dispose of batteries in a fire. They may explode. Check with local codes for possible special disposal instructions.

SAVE THESE INSTRUCTIONS



For continued protection against risk of fire, replace only with same type and rating of fuse.



Risk of Explosion if Battery is replaced by an Incorrect Type. Dispose of Used Batteries According to the Instructions.



To reduce the risk of fire, use only No. 26 AWG or larger (for example, 24 AWG) UL Listed or CSA Certified Telecommunication Line Cord.

Disconnect all power supply cords before servicing.


Disconnect TNV circuit connector before removing cover.


Importantes Instructions de Securite


En utilisant votre équipement téléphonique, veuillez respecter les précautions de sécurité de base pour réduire les risques d'incendie, de choc électrique et de blessure aux personnes, dont les suivantes:

- N'utilisez pas ce produit proche de l'eau, par exemple près d'une baignoire, d'un évier, d'un lavabo ou d'une machine à laver, dans un sous-sol humide ou près d'une piscine.
- Evitez d'utiliser un téléphone (autre qu'un sans fil) durant un orage. Il y a un risque de choc électrique à distance depuis un éclair.
- N'utilisez pas votre téléphone pour appeler en cas de fuite de gaz près de la source de la fuite.
- N'utilisez que le cordon électrique et les piles indiquées dans ce mode d'emploi. Ne jetez pas les piles dans un feu. Elles risquent d'exploser. Vérifiez les réglementations locales pour de possibles instructions spéciales pour le recyclage.

GARDEZ CES INSTRUCTIONS

 Pour une protection continue contre le risque d'incendie, ne changez les piles qu'avec un type et des spécifications identiques du fusible.

 Risque d'explosion si la pile est changée avec un type incorrect. Veuillez recycler les piles usages selon les Instructions.

 Pour réduire le risque d'incendie, n'utilisez qu'un cordon électrique pour les télécommunications certifié UL ou CSA No. 26 AWG ou plus grand (par exemple, 24 AWG).

Déconnectez tous les cordons électriques avant d'effectuer une réparation.

Déconnectez le connecteur de circuit TNV avant d'enlever le couvercle.

Configuring Basic Network Settings

Table of Contents

Connecting EdgeMarc for First Time

Deploying the EdgeMark 6000 Session Border Controller

This section explains on how to connect to the EdgeMarc and access the graphical user interface (GUI) to configure basic network settings for the first time. Refer to the [EdgeMarc VOS User Guide](#) for complete details on how to configure your EdgeMarc device for your network deployment.

Connecting EdgeMarc for First Time

The LAN interface ports are pre-configured with the IP address 192.168.1.1.

1. Connect a computer to the LAN interface port (LAN Port 1) using an Ethernet cable or connect to an Ethernet switch (using the IP address 192.168.1.2 and subnet mask 255.255.255.0).
2. Launch a web browser on your computer and enter the following URL: <http://192.168.1.1>.
3. Press Return. The EdgeMarc login screen is displayed.

Figure 8: EdgeMarc login screen



4. Enter your initial username in the field provided: root
5. Enter your initial password in the field provided: default
6. Click OK.
7. After you have logged in to the system for the first time with the default credentials, you are directed to the Change Password page (Figure 2).

Figure 9: Change password page



System: 6000

**Your account is new or has been reset.
A password change is required before access can be granted.**

User Name: root

Current Password:

New Password:

Confirm New Password:

Change Password


Enter the new password (minimum of 6, maximum of 8 characters)
New password must contain:
Lower Case Alpha (minimum of 1)
Numeric Characters (minimum of 1)
Special Characters (minimum of 1)

8. Enter your Current and New Passwords in the Change Password Page according to the new password instructions given in the page and then click Change Password. The Password Change Confirmation Page will be displayed.
9. Select Click here to log on with your new password from the Password Change Confirmation Page.
10. You will be navigated again to the EdgeMarc login screen (Figure 3). Log in to the EdgeMarc Admin landing page (Figure 4) with your User Name and New Password from the EdgeMarc login screen.

Figure 10: EdgeMarc login screen



Figure 11: EdgeMarc Admin landing page

 <p>Configuration Menu</p> <ul style="list-style-type: none"> + Admin + Network + Users + Security + SD-WAN + VoIP + VPN + Switch 	<p style="text-align: right;">Help</p> <hr/> <p>Software Version: Version 15.7.0AlphaSep-03-2019 -- Tue Sep 3 01:09:38 PDT 2019</p> <hr/> <p>Hostname: 6000</p> <hr/> <p>Model: EdgeMarc 6000 with IPv6 support</p> <hr/> <p>Vendor: Edgewater</p> <hr/> <p>LAN Interface MAC Address: 54:39:68:1B:C8:D2</p> <hr/> <p>Registration Status: The ALG feature is registered. View license key.</p> <hr/> <p>System: Date : 09/03/2019 23:11:01 UTC Erase Button : Enabled</p> <hr/> <p>Change Administrative Password: The password of the read-write administrative user can be changed.</p> <hr/> <p>Change Read-Only Password: The password of the read-only user can be changed.</p>
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Deploying the EdgeMark 6000 Session Border

Controller

The EdgeMarc is deployed as a Session Border Controller on the network. For details about how to configure and deploy the EdgeMarc device in your network, refer to [the EdgeMarc online help](#) and the *EdgeMarc VOS User Guide* available in the Ribbon Communications Knowledgebase.

System Specification

Model SKU	EM-6000-8S-2X-P-L	EM-6000-8S-2X-P	EM-6000-8S	EM-6000-P	EM-6000-L	EM-6000
CPU	CN9130 + 88F8215/2.0GHz/4 cores/Crypto					
System Memory	DDR4 SO-DIMM (8GB)					
Boot Flash Memory	8MB NOR/16GB eMMC					
LAN	4x GbE					
WAN	2x GbE dual media (RJ45+ SPF)					
Console port	RJ45					
USB 3.0 port	1					
Real Time Clock/RTC	V					
EEPROM	V					
DSP	V	V	V	V	-	-
FXO	2	2	-	-	-	-
FXS	8	8	8	-	-	-
T1/E1 PRI	2	2	-	2	-	-
LTE w/ uSIM	EG25-G	-	-	-	EG25-G	-
M.2 Express	Reserve for 5G module.	-	-	-	Reserve for 5G module.	-
Storage	Micro SD					
Erase Button (sticking out)	V					
Power adapter	12V/6A, 72W					
Rear PWR/Status LED	V					
Chassis	13", 1U Rack mountable					