FortiGate 3600C-DC

QuickStart Guide

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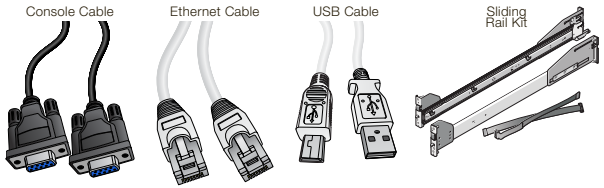
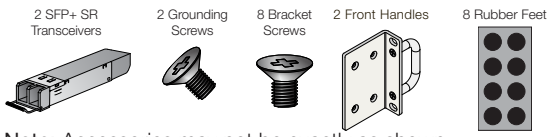
Package Contents

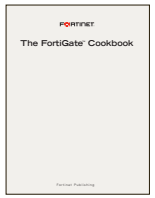
Fortinet's consolidated security solutions provide an integrated set of core security and network services in a single, easy-to-manage, high-performance appliance that is capable of supporting a wide range of deployment scenarios.

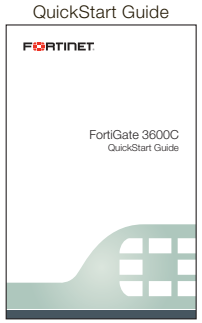
Your box contains the following:

- FortiGate 3600C-DC
- QuickStart Guide
- The FortiGate Cookbook
- 2 SFP+ SR Transceivers
- 2 Mounting Ears
- Sliding Rail Kit
- Console Cable
- Ethernet Cable
- USB Cable
- 8 Rubber Feet
- 8 Bracket Screws
- 2 Grounding Screws









Note: Accessories may not be exactly as shown.

Installation

Ensure the FortiGate unit is placed on a stable surface prior to rack-mount installation.

Please read the Cautions and Warnings section prior to installing your device.

Caution: Electrostatic discharge (ESD) can damage your Fortinet equipment.

Caution: Do not place heavy objects on the unit.

Caution: To avoid personal injury or damage to the unit, it is recommended that two or more people install the unit into the rack.

Caution: Please consult a licensed electrician before connecting this product to a DC power source, or hire a licensed electrician to perform all connections.

Rack-Mount Installation:

1. Using the supplied hardware, attach the slide rails and mounting ears to each side of the unit.
2. Secure the unit into your equipment rack.
3. Connect appropriate power cables into the rear of the unit and into a surge protected power bar or power supply.

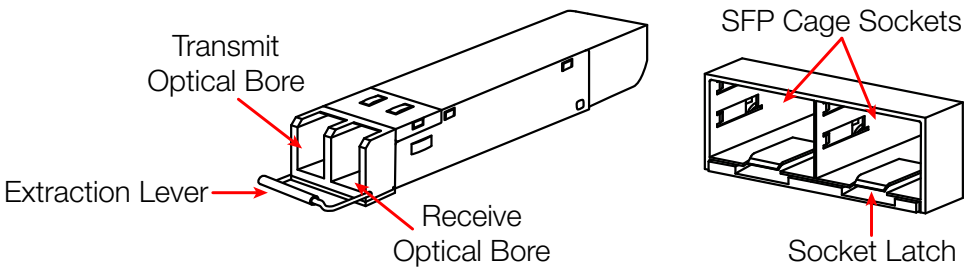
Surface-Mount Installation:

1. Ensure that the surface onto which the FortiGate unit to be installed is clean, level, and stable and that there is at least 1.5in (3.5cm) of clearance on all sides to allow for adequate airflow.
2. Attach the provided rubber feet to the bottom of the FortiGate unit.
3. Place the unit in the designated location.
4. Verify that the spacing around the FortiGate unit conforms to requirements and that the unit is level.
5. Connect appropriate power cables into the rear of the unit and into a surge protected power bar or power supply.

Note: If the unit has a redundant power supply, each power cable should be connected to a different power source. In this way, if one power source fails, the other may still be operational and the unit will not lose power.

Note: For more detailed installation instructions, see the *FortiGate Hardware Guide* on the Fortinet Technical Documentation website.

SFP Transceivers



Caution: SFP transceivers are static sensitive devices. Use an ESD wrist strap or similar grounding device when handling transceivers.

Caution: Do not install or remove SFP transceivers while fiber-optic cables are still attached. This can cause damage to the cables, cable connectors, and the optical interfaces. It may also prevent the transceiver from latching correctly into the socket connector.

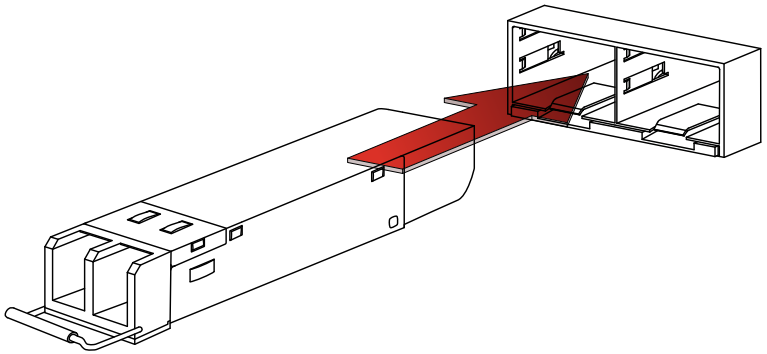
Note: Installing and removing SFP transceivers can shorten their useful life. Do not install or remove transceivers more than is necessary.

To install the SFP transceivers:

1. Ensure that you are properly grounded.
2. Remove the caps from SFP cage sockets on the front panel of the unit.
3. Position the SFP transceiver in front of the cage socket opening and ensure that the transceiver is correctly oriented.

   When the transceiver is correctly oriented, the extraction lever will be level with the socket latch.

   Note: SFP cage socket orientation may vary. Ensure that the SFP transceiver module is correctly oriented each time that you are inserting a transceiver.
4. Hold the sides of the SFP transceiver and slide it into the cage socket until it clicks into place.



Caution: Do not force the SFP transceivers into the cage slots. If the transceiver does not easily slide in and click into place, it may not be aligned correctly or may be upside down. If this happens, remove the SFP transceiver, realign it or rotate it and slide it in again.

5. Press the transceiver firmly into the cage socket with your thumb.
6. Verify that the transceiver is latched correctly by grasping the sides of the transceiver and trying to pull it out without lowering the extraction lever.

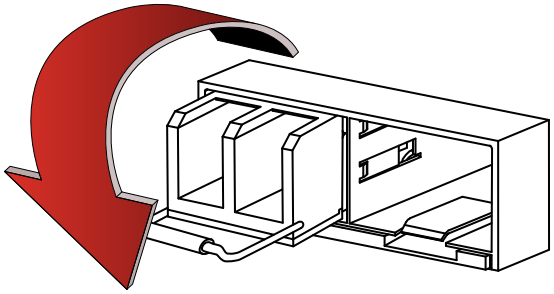
   If the transceiver cannot be removed, it is installed and latched correctly.

   If the transceiver can be removed, reinsert it and press harder with your thumb. If necessary, repeat this process until the transceiver is securely latched into the cage socket.

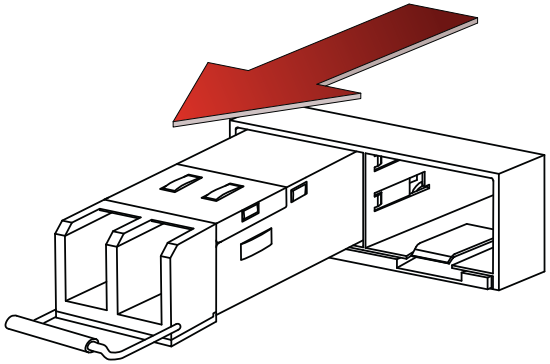
To remove the SFP transceivers:

1. Ensure that you are properly grounded.
2. If applicable, disconnect the fiber-optic cable from the transceiver connector and install a clean dust plug in the transceiver's optical bores.
3. Pull the extraction lever out and down to eject the transceiver.

   If you are unable to use your finger to open the lever, use a small flat-head screwdriver or other similar tool to open the lever.



4. Hold the sides of the transceiver and carefully pull it away from the cage socket.



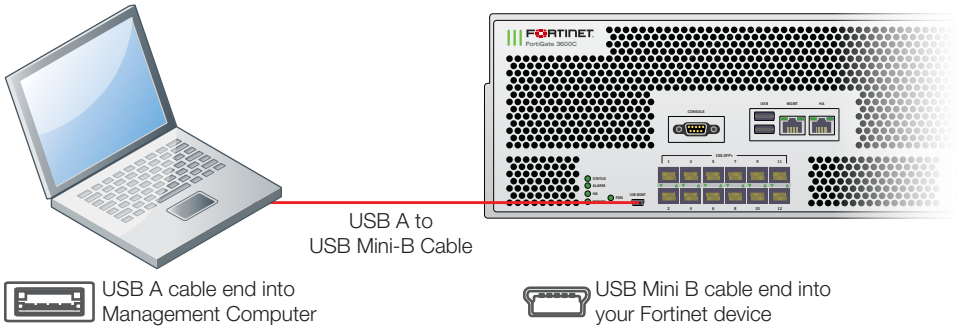
5. Replace the cap on the SFP cage socket and place the removed SFP transceiver into an antistatic bag.

Note: Follow proper fibre-optic handling procedures when installing and removing SFP transceivers to ensure the devices remain clean and are not damaged.

FortiExplorer

FortiExplorer provides a user-friendly tool that you can use to configure a FortiGate unit over a standard USB connection, rather than using a console cable or Ethernet connection.

Caution: Do not connect the USB cable until after FortiExplorer has been installed.



Note: When using FortiExplorer for the first time, ensure the FortiGate unit is using its factory default settings.

Installing FortiExplorer

FortiExplorer is available for Microsoft Windows XP, Vista, 7, and 8. It is also available for Mac OS X v10.6 Snow Leopard and higher.

Microsoft Windows Install

1. Double-click the .msi, or .exe file and follow the instructions on-screen. If loading from the CD, select the appropriate version for your operating system.
2. Connect the USB cable to the FortiGate unit and then to the management computer.
3. The FortiExplorer Easy Configuration Utility opens when the USB cable is connected. Select *Install the hardware automatically* and select *Next*.
4. After a moment, FortiExplorer will launch.

Mac OS X Install

1. Double-click the .dmg file and drag the FortiExplorer program file into the Applications folder.
2. Connect the USB cable to the FortiGate unit and then to the management computer.
3. Double-click the FortiExplorer icon to launch the application.

Configuration Options

With FortiExplorer, you are provided a number of options on how to configure the FortiGate unit, depending on your level of comfort with various interfaces.

Updating FortiExplorer and Firmware

FortiExplorer may be automatically updated from time to time.

You can also use FortiExplorer to check for new firmware for a FortiGate unit. To check for new firmware, select the FortiGate unit from the device list and select Check for New Firmware. FortiExplorer will also monitor firmware updates for your devices and provide an alert when one is available.

Connecting to the FortiGate Unit

The FortiGate unit requires some basic configuration to add it to your network. These basic steps include assigning IP addresses, DNS settings, and the default gateway. Until these steps are completed traffic will not flow through the device.

In addition to FortiExplorer, the FortiGate unit can be configured using the Web-based Manager or the Command Line Interface (CLI).

This section will step you through both methods of connecting to the unit. Use whichever method you are most comfortable with.

To Connect to the Web-based Manager:

1. Connect the FortiGate unit MGMT port to a management computer using the provided Ethernet cable.
2. Configure the management computer to be on the same subnet as the internal interface of the FortiGate unit:
   a. Browse to the *Network and Sharing Center* > *Change Adapter Settings* > *Local Area Connection Properties* > *Internet Protocol Version 4 (TCP/IPv4) Properties*.
   b. Change the IP address of the management computer to 192.168.1.2 and the netmask to 255.255.255.0.
3. To access the FortiGate unit Web-based Manager, start a browser of your choice and browse to https://192.168.1.99 (remember to include the “s” in https://).
4. Type `admin` in the *Name* field, leave the *Password* field blank, and select *Login*.

   You can now proceed with configuring your FortiGate unit.

To Connect to the CLI:

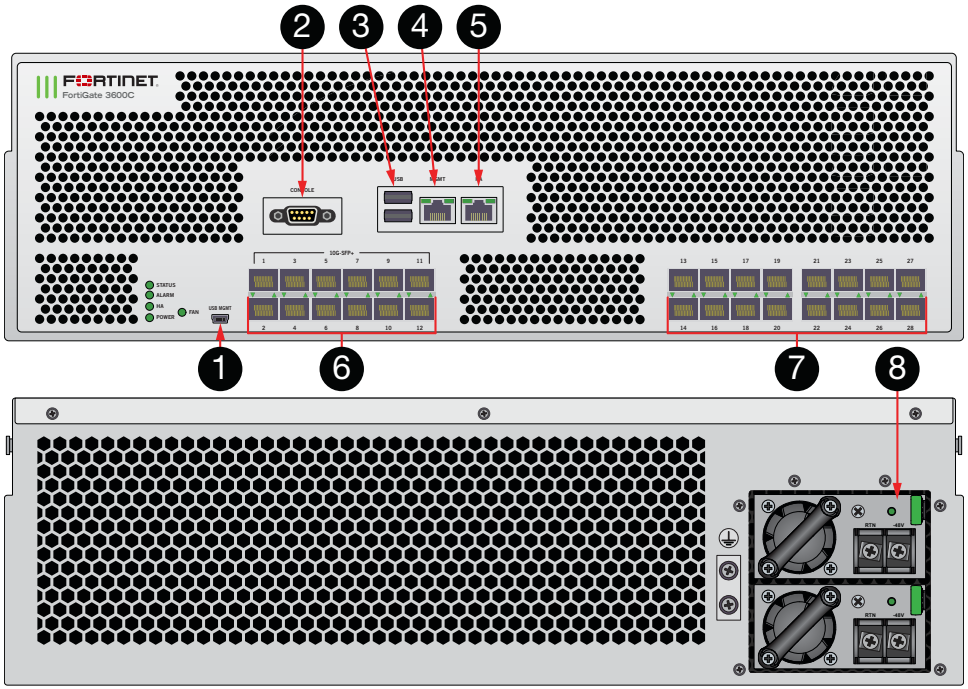
You can configure all FortiGate configuration options from the CLI using *config* commands. The CLI also includes *get*, *show*, *diagnose*, and *execute* commands for performing various configuration and monitoring tasks.

1. Connect the FortiGate unit console port to the management computer using the provided console cable.
2. Start a terminal emulation program on the management computer. Select the COM port and use the following settings:
   - Baud Rate: 9600
   - Data bits: 8
   - Parity: None
   - Stop bits: 1
   - Flow Control: None
3. Press *Enter* on your keyboard to connect to the CLI.
4. Type `admin` in the *Name* field, leave the *Password* field blank, and press *Enter*.

   You can now proceed with configuring your FortiGate unit.

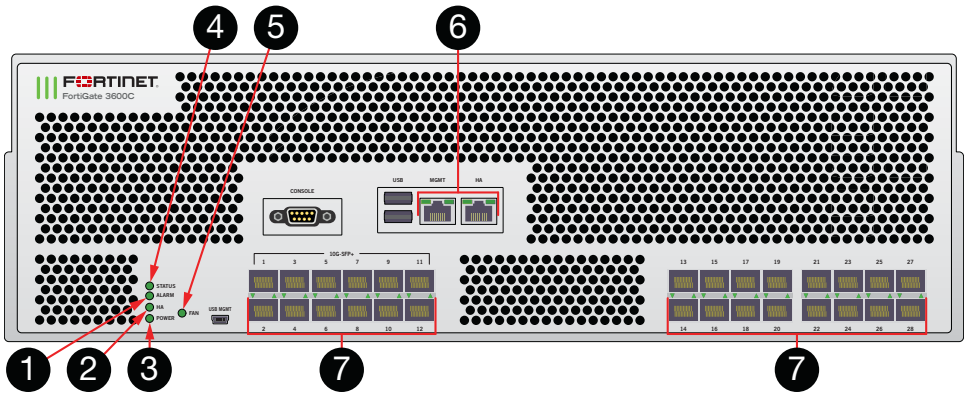
For more information about using the Web-based Manager and the CLI, see the FortiGate section of Fortinet's documentation website, located at http://docs.fortinet.com.

Technical Specifications



#	Interface	Type	Description
1	USB MGMT	USB Mini-B	USB client port for management.
2	CONSOLE	DB9	Optional RS-232 connection to the management computer. Provides access to the command line interface (CLI).
3	USB	USB A	USB server ports for USB key, modem, or management functions.
4	MGMT	RJ-45	Gigabit Ethernet client ports for management. The default IP address of MGMT is 192.168.1.99.
5	HA	RJ-45	Gigabit Ethernet ports reserved for HA heartbeat device or monitored interface.
6	SFP+ Ports 1 - 12	SFP+	10Gbps/auto FortiASIC-accelerated small form-factor pluggable transceiver.
7	SFP Ports 13 - 28	SFP	1Gbps FortiASIC-accelerated small form-factor pluggable transceiver.
8	Redundant Power Supplies		-48 to -60VDC, 36.2A max.

LED Specifications



#	LED	State	Description
1	ALARM	Red	A critical error has occurred.
		Amber	A minor error has occurred.
		Off	No errors detected.
2	HA	Green	The unit is operating in an HA cluster.
		Red	The unit is operating in HA mode, but no heartbeat link is established.
		Off	The unit is not operating in HA mode.
3	POWER	Green	The unit is powered.
		Red	A power rail is off.
		Off	The unit is off.
4	STATUS	Green	The unit is operating normally.
5	FAN	Green	The fan is not running or the speed is over threshold.
		Off	The fan is running and the speed is within proper range.
6	MGMT/HA Ports Activity (Right)	Yellow	Port is active.
		Flashing Yellow	Port is transmitting and receiving data.
		Off	Port is not in use.
6	MGMT/HA Ports Speed (Left)	Amber	Port is connected at 1Gbps.
		Green	Port is connected at 100Mbps.
		Off	Port is connected at 10Mbps or is not in use.
7	SFP+ & SFP Ports	Green	Port is active.
		Flashing Green	Port is transmitting and receiving data.
		Off	Port is not in use.

Cautions and Warnings

Environmental Specifications

Ambient operating temperature: 0C to 40C

Rack Mount Instructions - The following or similar rack-mount instructions are included with the installation instructions:
Instructions de montage en rack - Les instructions de montage en rack suivantes ou similaires sont incluses avec les instructions d'installation:

Elevated Operating Ambient - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (Tma) specified by the manufacturer.
Température ambiante élevée – S'il est installé dans un rack fermé ou à unités multiples, la température ambiante de fonctionnement de l'environnement du rack peut être supérieure à la température ambiante de la pièce. Par conséquent, il est important d'installer le matériel dans un environnement respectant la température ambiante maximale (Tma) stipulée par le fabricant.

Reduced Air Flow - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.
Ventilation réduite – Installation de l'équipement dans un rack doit être telle que la quantité de flux d'air nécessaire au bon fonctionnement de l'équipement n'est pas compromise.

Mechanical Loading - Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.
Chargement Mécanique – Montage de l'équipement dans le rack doit être telle qu'une situation dangereuse n'est pas lié à un chargement mécanique inégal.

Circuit Overloading - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.
Surtension – Il convient de prendre l'ensemble des précautions nécessaires lors du branchement de l'équipement au circuit d'alimentation et être particulièrement attentif aux effets de la suralimentation sur le dispositif assurant une protection contre les courts-circuits et le câblage. Ainsi, il est recommandé de tenir compte du numéro d'identification de l'équipement.

Reliable Earthing - Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).
Fiabilité de la mise à la terre– Fiabilité de la mise à la terre de l'équipement monté en rack doit être maintenue. Une attention particulière devrait être accordée aux connexions d'alimentation autres que les connexions directes au circuit de dérivation (par exemple de l'utilisation de bandes de puissance).

Refer to specific Product Model Data Sheet for Environmental Specifications (Operating Temperature, Storage Temperature, Humidity, and Altitude)
Référez à la Fiche Technique de ce produit pour les caractéristiques environnementales (Température de fonctionnement, température de stockage, humidité et l'altitude).

Safety

Warning: Equipment intended for installation in Restricted Access Location.
Avertissement: Le matériel est conçu pour être installé dans un endroit où l'accès est restreint.

Warning: A readily accessible disconnect device shall be incorporated in the building installation wiring.
Avertissement: Un dispositif de déconnexion facilement accessible doit être incorporé dans l'installation électrique du bâtiment.

Battery – Risk of explosion if the battery is replaced by an incorrect type. Do not dispose of batteries in a fire. They may explode. Dispose of used batteries according to your local regulations. IMPORTANT: Switzerland: Annex 4.10 of SR814.013 applies to batteries.

Batterie – Risque d'explosion si la batterie est remplacée par un type incorrect. Ne jetez pas les batteries au feu. Ils peuvent exploser. Jetez les piles usagées conformément aux réglementations locales. IMPORTANT: Suisse: l'annexe 4.10 de SR814.013 s'appliquent aux batteries.

警告
本電池如果更換不正確會有爆炸的危險
請依製造商說明書處理用過之電池

Caution: Disconnect power supply cords before servicing
Attention: Débranchez les cordons de la source d'alimentation avant tout entretien.

Grounding — To prevent damage to your equipment, connections that enter from outside the building should pass through a lightning / surge protector, and be properly grounded. Use an electrostatic discharge workstation (ESD) and/or wear an anti-static wrist strap while you work. In addition to the grounding terminal of the plug, on the back panel, there is another, separate terminal for earthing.

Mise à la terre — Pour éviter d'endommager votre matériel, assurez-vous que les branchements qui entrent à partir de l'extérieur du bâtiment passent par un parafoudre / parasurtenseur et sont correctement mis à la terre. Utilisez un poste de travail de décharge électrostatique (ESD) et / ou portez un bracelet anti-statique lorsque vous travaillez. Ce produit possède une borne de mise à la terre qui est prévu à l'arrière du produit, à ceci s'ajoute la mise à la terre de la prise.

This product has a separate protective earthing terminal provided on the back of the product in addition to the grounding terminal of the attachment plug. This separate protective earthing terminal must be permanently connected to earth with a green with yellow stripe conductor minimum size # 14 AWG and the connection is to be installed by a qualified service personnel.
Ce produit a une borne de mise à la terre séparé sur le dos de l'appareil, en plus de la borne de mise à la terre de la fiche de raccordement. Cette borne de mise à la terre séparée doit être connecté en permanence à la terre avec un conducteur vert avec la taille bande jaune de minimum # 14 AWG et la connexion doit être installé par un personnel qualifié.

Federal Communication Commission (FCC) – USA

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

(1) this device may not cause harmful interference, and
(2) this device must accept any interference received; including interference that may cause undesired operation.

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 it is not installed and used in accordance with the instruction manual, it 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.

WARNING: Any changes or modifications to this product not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

Industry Canada Equipment Standard for Digital Equipment (ICES) – Canada

CAN ICES-3 (A) / NMB-3 (A)

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regula¬tions of the Canadian Department of Communications.

Cet appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique édicte par le ministère des Communications du Canada.

European Conformity (CE) - EU

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.

Product Safety Electrical Appliance & Material (PSE) - Japan

日本では電気用品安全法(PSE)の規定により、同梱している電源コードは本製品の専用電源コードとして利用し、他の製品に使用しないでください。

Voluntary Control Council for Interference (VCCI) – Japan

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

Bureau of Standards Metrology and Inspection (BSMI) - Taiwan

這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情況下，使用者會被要求採取某些適當的對策。

The presence conditions of the restricted substance (BSMI RoHS table) are available at the link below:

https://www.fortinet.com/bsmi

China

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。这种情况下，可能需要用户对其采取切实可行的措施。

Documentation and Links

The following Fortinet web pages provide information and resources for your Fortinet product:

1. **Customer Service & Support:** https://support.fortinet.com
   On this page you can create a support account with Fortinet, register and manage your products, download updates, firmware images and release notes, and create technical support tickets.
2. **Technical Documentation:** http://docs.fortinet.com
   This page provides the most up-to-date versions of Fortinet publications for the entire family of Fortinet products.
3. **Technical Discussion Forums:** https://support.fortinet.com/forum
   This page allows you to communicate with other customers and Fortinet partners about Fortinet products, services, and configuration issues in a forum environment.
4. **Training Services:** http://training.fortinet.com
   This page provides course descriptions, availability, schedules, and locations of training programs in your area.
5. **FortiGuard Threat Research and Response:** http://www.fortiguard.com
   This page provides up-to-date information on vulnerabilities and threats, and includes a virus scanner, Internet Protocol (IP) signature look-up, web filtering tools, and related information.

Comments on Technical Documentation

Please send comments or information about any errors or omissions in this or any Fortinet technical documents to techdoc@fortinet.com.

Register Your Product

If you did not register your Fortinet product using the FortiExplorer wizard, please register your product now.

Register

Register your Fortinet product in order to receive:

• Technical Support • New product features • Protection from new threats

Enregistrer

Vous devez enregistrer le produit pour recevoir:

• Support technique • Nouvelles fonctionnalitées du produit • Protection contre de nouvelles menaces

Registra

La reistrazione ti permette di usufruire di:

• Supporto Tecnico • Nuove funzionalita • Proteezione dalle ultime minaccce

Registrar

Debe registrar el producto para recibir:

• Apoyo técnico • Nuevas funcionalidades del producto • Protección contra ataques

登録のお願い

本日、フォーティネット製品の登録をしてください。

登録すると次のメリットがあります。
テクニカルサポート・新機能の追加・新しい脅威への防御

请马上注册

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